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(54) Title: GENES, COMPOSITIONS, KITS, AND METHOD FOR IDENTIFICATION, ASSESSMENT, PREVENTION AND THERAPY OF OVARIAN CANCER

(57) Abstract: The invention relates to compositions, kits, and methods for detecting, characterizing, preventing, and treating human ovarian cancers. A variety of novel markers are provided, wherein changes in the levels of expression of one or more of the markers is correlated with the presence of ovarian cancer.

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COMPOSITIONS, KITS, AND METHODS FOR
IDENTIFICATION, ASSESSMENT, PREVENTION, AND THERAPY OF
OVARIAN CANCER

5 RELATED APPLICATIONS

The present application claims priority to U.S. provisional patent application serial no. 60/191,031 filed on March 21, 2000, U.S. provisional patent application serial no. 60/207,124, filed on May 25, 2000, U.S. provisional patent application serial no. 60/211,940, filed on June 15, 2000, U.S. provisional patent application serial no. 10 60/216,820, filed on July 7, 2000, U.S. provisional patent application serial no. 60/220,661, filed on July 25, 2000, and U.S. provisional patent application serial no. 60/257,672, filed on December 21, 2000, all of which are expressly incorporated by reference.

15 FIELD OF THE INVENTION

The field of the invention is ovarian cancer, including diagnosis, characterization, management, and therapy of ovarian cancer.

BACKGROUND OF THE INVENTION

20 Ovarian cancer is responsible for significant morbidity and mortality in populations around the world. Ovarian cancer is classified, on the basis of clinical and pathological features, in three groups, namely epithelial ovarian cancer (EOC; >90% of ovarian cancer in Western countries), germ cell tumors (*circa* 2-3% of ovarian cancer), and stromal ovarian cancer (*circa* 5% of ovarian cancer; Ozols *et al.*, 1997, *Cancer* 25 *Principles and Practice of Oncology*, 5th ed., DeVita *et al.*, Eds. pp. 1502). Relative to EOC, germ cell tumors and stromal ovarian cancers are more easily detected and treated at an early stage, translating into higher/better survival rates for patients afflicted with these two types of ovarian cancer.

There are numerous types of ovarian tumors, some of which are benign, and 30 others of which are malignant. Treatment (including non-treatment) options and predictions of patient outcome depend on accurate classification of the ovarian cancer. Ovarian cancers are named according to the type of cells from which the cancer is

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derived and whether the ovarian cancer is benign or malignant. Recognized histological tumor types include, for example, serous, mucinous, endometrioid, and clear cell tumors. In addition, ovarian cancers are classified according to recognized grade and stage scales.

- 5 In grade I, the tumor tissue is well differentiated from normal ovarian tissue. In grade II, tumor tissue is moderately well differentiated. In grade III, the tumor tissue is poorly differentiated from normal tissue, and this grade correlates with a less favorable prognosis than grades I and II. Stage I is generally confined within the capsule surrounding one (stage IA) or both (stage IB) ovaries, although in some stage I (*i.e.*
- 10 stage IC) cancers, malignant cells may be detected in ascites, in peritoneal rinse fluid, or on the surface of the ovaries. Stage II involves extension or metastasis of the tumor from one or both ovaries to other pelvic structures. In stage IIA, the tumor extends or has metastasized to the uterus, the fallopian tubes, or both. Stage IIB involves extension of the tumor to the pelvis. Stage IIC is stage IIA or IIB in which malignant cells may be
- 15 detected in ascites, in peritoneal rinse fluid, or on the surface of the ovaries. In stage III, the tumor comprises at least one malignant extension to the small bowel or the omentum, has formed extrapelvic peritoneal implants of microscopic (stage IIIA) or macroscopic (< 2 centimeter diameter, stage IIIB; > 2 centimeter diameter, stage IIIC) size, or has metastasized to a retroperitoneal or inguinal lymph node (an alternate
- 20 indicator of stage IIIC). In stage IV, distant (*i.e.* non-peritoneal) metastases of the tumor can be detected.

- The durations of the various stages of ovarian cancer are not presently known, but are believed to be at least about a year each (Richart *et al.*, 1969, *Am. J. Obstet. Gynecol.* 105:386). Prognosis declines with increasing stage designation. For example,
- 25 5-year survival rates for patients diagnosed with stage I, II, III, and IV ovarian cancer are 80%, 57%, 25%, and 8%, respectively.

- Despite being the third most prevalent gynecological cancer, ovarian cancer is the leading cause of death among those afflicted with gynecological cancers. The disproportionate mortality of ovarian cancer is attributable to a substantial absence of
- 30 symptoms among those afflicted with early-stage ovarian cancer and to difficulty diagnosing ovarian cancer at an early stage. Patients afflicted with ovarian cancer most often present with non-specific complaints, such as abnormal vaginal bleeding,

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gastrointestinal symptoms, urinary tract symptoms, lower abdominal pain, and generalized abdominal distension. These patients rarely present with paraneoplastic symptoms or with symptoms which clearly indicate their affliction. Presently, less than about 40% of patients afflicted with ovarian cancer present with stage I or stage II.

- 5 Management of ovarian cancer would be significantly enhanced if the disease could be detected at an earlier stage, when treatments are much more generally efficacious.

Ovarian cancer may be diagnosed, in part, by collecting a routine medical history from a patient and by performing physical examination, x-ray examination, and chemical and hematological studies on the patient. Hematological tests which may be
10 indicative of ovarian cancer in a patient include analyses of serum levels of proteins designated CA125 and DF3 and plasma levels of lysophosphatidic acid (LPA). Palpation of the ovaries and ultrasound techniques (particularly including endovaginal ultrasound and color Doppler flow ultrasound techniques) can aid detection of ovarian tumors and differentiation of ovarian cancer from benign ovarian cysts. However, a
15 definitive diagnosis of ovarian cancer typically requires performing exploratory laparotomy of the patient.

Potential tests for the detection of ovarian cancer (*e.g.*, screening, reflex or monitoring) may be characterized by a number of factors. The "sensitivity" of an assay refers to the probability that the test will yield a positive result in an individual afflicted
20 with ovarian cancer. The "specificity" of an assay refers to the probability that the test will yield a negative result in an individual not afflicted with ovarian cancer. The "positive predictive value" (PPV) of an assay is the ratio of true positive results (*i.e.* positive assay results for patients afflicted with ovarian cancer) to all positive results (*i.e.* positive assay results for patients afflicted with ovarian cancer + positive assay
25 results for patients not afflicted with ovarian cancer). It has been estimated that in order for an assay to be an appropriate population-wide screening tool for ovarian cancer the assay must have a PPV of at least about 10% (Rosenthal *et al.*, 1998, *Sem. Oncol.* 25:315-325). It would thus be desirable for a screening assay for detecting ovarian cancer in patients to have a high sensitivity and a high PPV. Monitoring and reflex tests
30 would also require appropriate specifications.

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Owing to the cost, limited sensitivity, and limited specificity of known methods of detecting ovarian cancer, screening is not presently performed for the general population. In addition, the need to perform laparotomy in order to diagnose ovarian cancer in patients who screen positive for indications of ovarian cancer limits the desirability of population-wide screening, such that a PPV even greater than 10% would be desirable.

Prior use of serum CA125 level as a diagnostic marker for ovarian cancer indicated that this method exhibited insufficient specificity for use as a general screening method. Use of a refined algorithm for interpreting CA125 levels in serial retrospective samples obtained from patients improved the specificity of the method without shifting detection of ovarian cancer to an earlier stage (Skakes, 1995, *Cancer* 76:2004). Screening for LPA to detect gynecological cancers including ovarian cancer exhibited a sensitivity of about 96% and a specificity of about 89%. However, CA125-based screening methods and LPA-based screening methods are hampered by the presence of CA125 and LPA, respectively, in the serum of patients afflicted with conditions other than ovarian cancer. For example, serum CA125 levels are known to be associated with menstruation, pregnancy, gastrointestinal and hepatic conditions such as colitis and cirrhosis, pericarditis, renal disease, and various non-ovarian malignancies. Serum LPA is known, for example, to be affected by the presence of non-ovarian gynecological malignancies. A screening method having a greater specificity for ovarian cancer than the current screening methods for CA125 and LPA could provide a population-wide screening for early stage ovarian cancer.

Presently greater than about 60% of ovarian cancers diagnosed in patients are stage III or stage IV cancers. Treatment at these stages is largely limited to cytoreductive surgery (when feasible) and chemotherapy, both of which aim to slow the spread and development of metastasized tumor. Substantially all late stage ovarian cancer patients currently undergo combination chemotherapy as primary treatment, usually a combination of a platinum compound and a taxane. Median survival for responding patients is about one year. Combination chemotherapy involving agents such as doxorubicin, cyclophosphamide, cisplatin, hexamethylmelamine, paclitaxel, and methotrexate may improve survival rates in these groups, relative to single-agent therapies. Various recently-developed chemotherapeutic agents and treatment regimens

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have also demonstrated usefulness for treatment of advanced ovarian cancer. For example, use of the topoisomerase I inhibitor topotecan, use of amifostine to minimize chemotherapeutic side effects, and use of intraperitoneal chemotherapy for patients having peritoneally implanted tumors have demonstrated at least limited utility.

- 5 Presently, however, the 5-year survival rate for patients afflicted with stage III ovarian cancer is 25%, and the survival rate for patients afflicted with stage IV ovarian cancer is 8%.

In summary, the earlier ovarian cancer is detected, the aggressiveness of therapeutic intervention and the side effects associated with therapeutic intervention are
10 minimized. More importantly, the earlier the cancer is detected, the survival rate and quality of life of ovarian cancer patients is enhanced. Thus, a pressing need exists for methods of detecting ovarian cancer as early as possible. There also exists a need for methods of detecting recurrence of ovarian cancer as well as methods for predicting and monitoring the efficacy of treatment. The present invention satisfies these needs.

15

SUMMARY OF THE INVENTION

The invention relates to novel genes associated with ovarian cancer as well as methods of assessing whether a patient is afflicted with ovarian cancer. This method comprises the step of comparing the level of expression of a marker in a patient sample,
20 wherein the marker is listed in Tables 1-2, and the normal level of expression of the marker in a control, *e.g.*, a sample from a patient without ovarian cancer. A significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with ovarian cancer. Preferably, a protein corresponding to the marker is a secreted protein. Alternatively, the marker
25 can correspond to a protein having an extracellular portion, to one which is normally expressed in ovarian tissue at a detectable level, or both.

In one method, the marker(s) are preferably selected such that the positive predictive value of the method is at least about 10%. Also preferred are embodiments of the method wherein the marker is over- or under-expressed by at least two-fold in at
30 least about 20% of stage I ovarian cancer patients, stage II ovarian cancer patients, stage III ovarian cancer patients, stage IV ovarian cancer patients, grade I ovarian cancer patients, grade II ovarian cancer patients, grade III ovarian cancer patients, epithelial

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ovarian cancer patients, stromal ovarian cancer patients, germ cell ovarian cancer patients, malignant ovarian cancer patients, benign ovarian patients, serous neoplasm ovarian cancer patients, mucinous neoplasm ovarian cancer patients, endometrioid neoplasm ovarian cancer patients and/or clear cell neoplasm ovarian cancer patients.

5 In one embodiment of the methods of the present invention, the patient sample is an ovary-associated body fluid. Such fluids include, for example, blood fluids, lymph, ascitic fluids, gynecological fluids, cystic fluids, urine, and fluids collected by peritoneal rinsing. In another embodiment, the sample comprises cells obtained from the patient. In this embodiment, the cells may be found in a fluid selected from the group consisting
10 of a fluid collected by peritoneal rinsing, a fluid collected by uterine rinsing, a uterine fluid, a uterine exudate, a pleural fluid, and an ovarian exudate. In another embodiment, the patient sample is *in vivo*.

In accordance with the methods of the present invention, the level of expression of the marker in a sample can be assessed, for example, by detecting the presence in the
15 sample of :

- a protein corresponding to the marker or fragment of the protein (*e.g.* using a reagent, such as an antibody, an antibody derivative, or an antibody fragment, which binds specifically with the protein)
- a transcribed polynucleotide (*e.g.* an mRNA or a cDNA), or fragment
20 thereof, having at least a portion with which the marker is substantially homologous (*e.g.* by contacting a mixture of transcribed polynucleotides obtained from the sample with a substrate having one or more of the markers listed in Tables 1-2 fixed thereto at selected positions)
- a transcribed polynucleotide or fragment thereof, wherein the
25 polynucleotide anneals with the marker under stringent hybridization conditions.
- a metabolite which is produced directly (*i.e.*, catalyzed) or indirectly by a protein corresponding to the marker

The methods of the present invention are particularly useful for patients with an
30 identified pelvic mass or symptoms associated with ovarian cancer. The methods of the present invention can also be of particular use with patients having an enhanced risk of developing ovarian cancer (*e.g.*, patients having a familial history of ovarian cancer,

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patients identified as having a mutant oncogene, and patients at least about 50 years of age). The methods of the present invention may further be of particular use in monitoring the efficacy of treatment of an ovarian cancer patient (*e.g.* the efficacy of chemotherapy).

- 5 The methods of the present invention may be performed using a plurality (*e.g.* 2, 3, 5, or 10 or more) of markers. According to a method involving a plurality of markers, the level of expression in the sample of each of a plurality of markers independently selected from the markers listed in Tables 1-2 is compared with the normal level of expression of each of the plurality of markers in samples of the same type obtained from
- 10 control humans not afflicted with ovarian cancer. The markers of Tables 1-2 may also be used in combination with known ovarian cancer markers in the methods of the present invention.

- In a preferred method of assessing whether a patient is afflicted with ovarian cancer (*e.g.*, new detection ("screening"), detection of recurrence, reflex testing), the
- 15 method comprises comparing:
- a) the level of expression of a marker in a patient sample, wherein at least one marker is selected from the markers of Tables 1-2, and
 - b) the normal level of expression of the marker in a control non-ovarian cancer sample.

- 20 A significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with ovarian cancer.

- The methods of the present invention further include a method of assessing the efficacy of a test compound for inhibiting ovarian cancer in a patient. This method
- 25 comprises comparing:
- a) expression of a marker in a first sample obtained from the patient and maintained in the presence of the test compound, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
 - 30 b) expression of the marker in a second sample obtained from the patient and maintained in the absence of the test compound.

A significant difference between the level of expression of the marker in the first sample, relative to the second sample, is an indication that the test compound is efficacious for inhibiting ovarian cancer in the patient. For example, the first and second samples can be portions of a single sample obtained from the patient or portions of pooled samples obtained from the patient.

The invention further relates to a method of assessing the efficacy of a therapy for inhibiting ovarian cancer in a patient. This method comprises comparing:

- a) expression of a marker in a first sample obtained from the patient prior to providing at least a portion of the therapy to the patient, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
- b) expression of the marker in a second sample obtained from the patient following provision of the portion of the therapy.

A significant difference between the level of expression of the marker in the second sample, relative to the first sample, is an indication that the therapy is efficacious for inhibiting ovarian cancer in the patient.

It will be appreciated that in these methods the "therapy" may be any traditional therapy for treating ovarian cancer including, but not limited to, chemotherapy, radiation therapy and surgical removal of tissue, *e.g.*, an ovarian tumor. Thus, the methods of the invention may be used to evaluate a patient before, during and after thereapy, for example, to evaluate the reduction in tumor burden.

The present invention therefore further comprises a method for monitoring the progression of ovarian cancer in a patient, the method comprising:

- a) detecting in a patient sample at a first time point, the expression of a marker, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2;
- b) repeating step a) at a subsequent time point in time; and
- c) comparing the level of expression detected in steps a) and b), and therefrom monitoring the progression of ovarian cancer in the patient.

The invention also includes a method of selecting a composition for inhibiting ovarian cancer in a patient. This method comprises the steps of:

- a) obtaining a sample comprising cancer cells from the patient;

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- b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker listed in Tables 1-2 in each of the aliquots; and
- 5 d) selecting one of the test compositions which alters the level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

In addition, the invention includes a method of inhibiting ovarian cancer in a patient. This method comprises the steps of:

- 10 a) obtaining a sample comprising cancer cells from the patient;
- b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker listed in Tables 1-2 in each of the aliquots; and
- 15 d) administering to the patient at least one of the test compositions which alters the level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

The invention also includes a kit for assessing whether a patient is afflicted with ovarian cancer. This kit comprises reagents for assessing expression of a marker listed
20 in Tables 1-2.

In another aspect, the invention relates to a kit for assessing the suitability of each of a plurality of compounds for inhibiting an ovarian cancer in a patient. The kit comprises a reagent for assessing expression of a marker listed in Tables 1-2, and may also comprise a plurality of compounds.

25 In another aspect, the invention relates to a kit for assessing the presence of ovarian cancer cells. This kit comprises an antibody, wherein the antibody binds specifically with a protein corresponding to a marker listed in Tables 1-2. The kit may also comprise a plurality of antibodies, wherein the plurality binds specifically with a protein corresponding to a different marker listed in Tables 1-2.

30 The invention also includes a kit for assessing the presence of ovarian cancer cells, wherein the kit comprises a nucleic acid probe. The probe binds specifically with a transcribed polynucleotide corresponding to a marker listed in Tables 1-2. The kit

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may also comprise a plurality of probes, wherein each of the probes binds specifically with a transcribed polynucleotide corresponding to a different marker listed in Tables 1-2.

The invention further relates to a method of making an isolated hybridoma which produces an antibody useful for assessing whether a patient is afflicted with ovarian cancer. The method comprises isolating a protein corresponding to a marker listed in Tables 1-2, immunizing a mammal using the isolated protein, isolating splenocytes from the immunized mammal, fusing the isolated splenocytes with an immortalized cell line to form hybridomas, and screening individual hybridomas for production of an antibody which specifically binds with the protein to isolate the hybridoma. The invention also includes an antibody produced by this method.

The invention further includes a method of assessing the ovarian carcinogenic potential of a test compound. This method comprises the steps of:

- a) maintaining separate aliquots of ovarian cells in the presence and absence of the test compound; and
- b) comparing expression of a marker in each of the aliquots.

The marker is selected from those listed in Tables 1-2. A significantly altered level of expression of the marker in the aliquot maintained in the presence of (or exposed to) the test compound, relative to the aliquot maintained in the absence of the test compound, is an indication that the test compound possesses ovarian carcinogenic potential.

Additionally, the invention includes a kit for assessing the ovarian carcinogenic potential of a test compound. The kit comprises ovarian cells and a reagent for assessing expression of a marker in each of the aliquots. The marker is selected from those listed in Tables 1-2.

The invention further relates to a method of treating a patient afflicted with ovarian cancer or at risk of developing ovarian cancer. This method comprises enhancing expression of a marker listed in Tables 1-2 or providing to cells of the patient a protein corresponding to a marker listed in Tables 1-2, wherein the marker is underexpressed in patients afflicted with ovarian cancer. The protein can be provided to the cells, for example, by providing a vector comprising a polynucleotide encoding the protein to the cells.

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The invention includes another method of treating a patient afflicted with ovarian cancer or at risk of developing ovarian cancer. This method comprises inhibiting expression or overexpression of a marker listed in Tables 1-2 by, *e.g.*, providing to cells of the patient an antisense oligonucleotide complementary to a polynucleotide
5 corresponding to a marker listed in Tables 1-2, wherein the marker is overexpressed in patients afflicted with ovarian cancer.

It will be appreciated that the methods and kits of the present invention may also include known cancer markers including known ovarian cancer markers. It will further be appreciated that the methods and kits may be used to identify cancers other than
10 ovarian cancer.

DETAILED DESCRIPTION OF THE INVENTION

The invention relates to newly discovered genes associated with the cancerous state of ovarian cells. It has been discovered that the level of expression of individual
15 genes, also referred to as markers, and combinations of these genes, correlates with the presence of ovarian cancer in a patient. Methods are provided for detecting the presence of ovarian cancer in a sample, the absence of ovarian cancer in a sample, the stage of an ovarian cancer, and with other characteristics of ovarian cancer that are relevant to prevention, diagnosis, characterization, and therapy of ovarian cancer in a patient.

20

Definitions

As used herein, each of the following terms has the meaning associated with it in this section.

The articles "a" and "an" are used herein to refer to one or to more than one (*i.e.* to at least one) of the grammatical object of the article. By way of example, "an
25 element" means one element or more than one element.

A "marker" is a naturally-occurring polymer corresponding to at least one of the novel nucleic acids listed in Tables 1-2. For example, markers include, without limitation, sense and anti-sense strands of genomic DNA (*i.e.* including any introns
30 occurring therein), RNA generated by transcription of genomic DNA (*i.e.* prior to splicing), RNA generated by splicing of RNA transcribed from genomic DNA, and proteins generated by translation of spliced RNA (*i.e.* including proteins both before and

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after cleavage of normally cleaved regions such as transmembrane signal sequences). As used herein, "marker" may also include a cDNA made by reverse transcription of an RNA generated by transcription of genomic DNA (including spliced RNA).

The term "probe" refers to any molecule which is capable of selectively binding to a specifically intended target molecule, for example a marker of the invention. Probes can be either synthesized by one skilled in the art, or derived from appropriate biological preparations. For purposes of detection of the target molecule, probes may be specifically designed to be labeled, as described herein. Examples of molecules that can be utilized as probes include, but are not limited to, RNA, DNA, proteins, antibodies, and organic monomers.

An "ovary-associated" body fluid is a fluid which, when in the body of a patient, contacts or passes through ovarian cells or into which cells or proteins shed from ovarian cells *e.g.* ovarian epithelium, are capable of passing. Exemplary ovary-associated body fluids include blood fluids, lymph, ascites, gynecological fluids, cystic fluid, urine, and fluids collected by peritoneal rinsing.

The "normal" level of expression of a marker is the level of expression of the marker in ovarian cells of a patient, *e.g.* a human, not afflicted with ovarian cancer.

"Over-expression" and "under-expression" of a marker refer to expression of the marker of a patient at a greater or lesser level, respectively, than normal level of expression of the marker (*e.g.* at least two-fold greater or lesser level).

As used herein, the term "promoter/regulatory sequence" means a nucleic acid sequence which is required for expression of a gene product operably linked to the promoter/regulatory sequence. In some instances, this sequence may be the core promoter sequence and in other instances, this sequence may also include an enhancer sequence and other regulatory elements which are required for expression of the gene product. The promoter/regulatory sequence may, for example, be one which expresses the gene product in a tissue-specific manner.

A "constitutive" promoter is a nucleotide sequence which, when operably linked with a polynucleotide which encodes or specifies a gene product, causes the gene product to be produced in a living human cell under most or all physiological conditions of the cell.

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An "inducible" promoter is a nucleotide sequence which, when operably linked with a polynucleotide which encodes or specifies a gene product, causes the gene product to be produced in a living human cell substantially only when an inducer which corresponds to the promoter is present in the cell.

- 5 A "tissue-specific" promoter is a nucleotide sequence which, when operably linked with a polynucleotide which encodes or specifies a gene product, causes the gene product to be produced in a living human cell substantially only if the cell is a cell of the tissue type corresponding to the promoter.

- 10 A "transcribed polynucleotide" is a polynucleotide (*e.g.* an RNA, a cDNA, or an analog of one of an RNA or cDNA) which is complementary to or homologous with all or a portion of a mature RNA made by transcription of a genomic DNA corresponding to a marker of the invention and normal post-transcriptional processing (*e.g.* splicing), if any, of the transcript.

- "Complementary" refers to the broad concept of sequence complementarity
- 15 between regions of two nucleic acid strands or between two regions of the same nucleic acid strand. It is known that an adenine residue of a first nucleic acid region is capable of forming specific hydrogen bonds ("base pairing") with a residue of a second nucleic acid region which is antiparallel to the first region if the residue is thymine or uracil. Similarly, it is known that a cytosine residue of a first nucleic acid strand is capable of
- 20 base pairing with a residue of a second nucleic acid strand which is antiparallel to the first strand if the residue is guanine. A first region of a nucleic acid is complementary to a second region of the same or a different nucleic acid if, when the two regions are arranged in an antiparallel fashion, at least one nucleotide residue of the first region is capable of base pairing with a residue of the second region. Preferably, the first region
- 25 comprises a first portion and the second region comprises a second portion, whereby, when the first and second portions are arranged in an antiparallel fashion, at least about 50%, and preferably at least about 75%, at least about 90%, or at least about 95% of the nucleotide residues of the first portion are capable of base pairing with nucleotide residues in the second portion. More preferably, all nucleotide residues of the first
- 30 portion are capable of base pairing with nucleotide residues in the second portion.

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"Homologous" as used herein, refers to nucleotide sequence similarity between two regions of the same nucleic acid strand or between regions of two different nucleic acid strands. When a nucleotide residue position in both regions is occupied by the same nucleotide residue, then the regions are homologous at that position. A first region
5 is homologous to a second region if at least one nucleotide residue position of each region is occupied by the same residue. Homology between two regions is expressed in terms of the proportion of nucleotide residue positions of the two regions that are occupied by the same nucleotide residue. By way of example, a region having the nucleotide sequence 5'-ATTGCC-3' and a region having the nucleotide sequence 5'-
10 TATGGC-3' share 50% homology. Preferably, the first region comprises a first portion and the second region comprises a second portion, whereby, at least about 50%, and preferably at least about 75%, at least about 90%, or at least about 95% of the nucleotide residue positions of each of the portions are occupied by the same nucleotide residue. More preferably, all nucleotide residue positions of each of the portions are occupied by
15 the same nucleotide residue.

A marker is "fixed" to a substrate if it is covalently or non-covalently associated with the substrate such the substrate can be rinsed with a fluid (*e.g.* standard saline citrate, pH 7.4) without a substantial fraction of the marker dissociating from the substrate.

20 As used herein, a "naturally-occurring" nucleic acid molecule refers to an RNA or DNA molecule having a nucleotide sequence that occurs in nature (*e.g.* encodes a natural protein).

Expression of a marker in a patient is "significantly" higher or lower than the normal level of expression of a marker if the level of expression of the marker is greater
25 or less, respectively, than the normal level by an amount greater than the standard error of the assay employed to assess expression, and preferably at least twice, and more preferably three, four, five or ten times that amount. Alternately, expression of the marker in the patient can be considered "significantly" higher or lower than the normal level of expression if the level of expression is at least about two, and preferably at least
30 about three, four, or five times, higher or lower, respectively, than the normal level of expression of the marker.

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Ovarian cancer is "inhibited" if at least one symptom of the cancer is alleviated, terminated, slowed, or prevented. As used herein, ovarian cancer is also "inhibited" if recurrence or metastasis of the cancer is reduced, slowed, delayed, or prevented.

A kit is any manufacture (*e.g.* a package or container) comprising at least one
5 reagent, *e.g.* a probe, for specifically detecting a marker of the invention, the manufacture being promoted, distributed, or sold as a unit for performing the methods of the present invention.

Description

10 The present invention is based, in part, on identification of novel markers which are over-expressed in ovarian cancer cells as compared to their expression in normal (*i.e.* non- cancerous) ovarian cells. The markers of the invention correspond to DNA, RNA, and polypeptide molecules which can be detected in one or both of normal and cancerous ovarian cells. The enhanced expression of one or more of these markers in
15 ovarian cells is herein correlated with the cancerous state of the tissue. The invention thus includes compositions, kits, and methods for assessing the cancerous state of ovarian cells (*e.g.* cells obtained from a human, cultured human cells, archived or preserved human cells and *in vivo* cells).

The compositions, kits, and methods of the invention have the following uses,
20 among others:

- 1) assessing whether a patient is afflicted with ovarian cancer;
- 2) assessing the stage of ovarian cancer in a human patient;
- 3) assessing the grade of ovarian cancer in a patient;
- 4) assessing the benign or malignant nature of ovarian cancer in a patient;
- 25 5) assessing the histological type of neoplasm (*e.g.* serous, mucinous, endometroid, or clear cell neoplasm) associated with ovarian cancer in a patient;
- 6) making an isolated hybridoma which produces an antibody useful for assessing whether a patient is afflicted with ovarian cancer;
- 30 7) assessing the presence of ovarian cancer cells;
- 8) assessing the efficacy of one or more test compounds for inhibiting ovarian cancer in a patient;

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- 9) assessing the efficacy of a therapy for inhibiting ovarian cancer in a patient;
- 10) monitoring the progression of ovarian cancer in a patient;
- 11) selecting a composition or therapy for inhibiting ovarian cancer in a patient;
- 12) treating a patient afflicted with ovarian cancer;
- 13) inhibiting ovarian cancer in a patient;
- 14) assessing the ovarian carcinogenic potential of a test compound; and
- 15) inhibiting an ovarian cancer in a patient at risk for developing ovarian cancer.

The invention thus includes a method of assessing whether a patient is afflicted with ovarian cancer. This method comprises comparing the level of expression of a marker in a patient sample and the normal level of expression of the marker in a control, *e.g.*, a non-ovarian cancer sample. A significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with ovarian cancer. The marker is selected from the group consisting of the markers listed in Tables 1-2.

The polynucleotides set forth in Tables 1-2 represent previously unidentified nucleotide sequences. These nucleotide sequences were identified through subtracted library experiments described herein. Also provided by this invention are polynucleotides that correspond to the polynucleotides of Tables 1-2. In one embodiment, these polynucleotides are obtained by identification of a larger fragment or full-length coding sequence of these polynucleotides. Gene delivery vehicles, host cells, compositions and databases (all described herein) containing these polynucleotides are also provided by this invention.

Any marker or combination of markers listed in Tables 1-2, as well as any known markers in combination with the markers set forth in Tables 1-2, may be used in the compositions, kits, and methods of the present invention. In general, it is preferable to use markers for which the difference between the level of expression of the marker in ovarian cancer cells and the level of expression of the same marker in normal ovarian

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cells is as great as possible. Although this difference can be as small as the limit of detection of the method for assessing expression of the marker, it is preferred that the difference be at least greater than the standard error of the assessment method, and preferably a difference of at least 2-, 3-, 4-, 5-, 6-, 7-, 8-, 9-, 10-, 15-, 20-, 25-, 100-, 500-, 1000-fold or greater.

It is recognized that certain markers correspond to proteins which are secreted from ovarian cells (*i.e.* one or both of normal and cancerous cells) to the extracellular space surrounding the cells. These markers are preferably used in certain embodiments of the compositions, kits, and methods of the invention, owing to the fact that the protein corresponding to each of these markers can be detected in an ovary-associated body fluid sample, which may be more easily collected from a human patient than a tissue biopsy sample. In addition, preferred *in vivo* techniques for detection of a protein corresponding to a marker of the invention include introducing into a subject a labeled antibody directed against the protein. For example, the antibody can be labeled with a radioactive marker whose presence and location in a subject can be detected by standard imaging techniques.

It is a simple matter for the skilled artisan to determine whether any particular marker corresponds to a secreted protein. In order to make this determination, the protein corresponding to a marker is expressed in a test cell (*e.g.* a cell of an ovarian cell line), extracellular fluid is collected, and the presence or absence of the protein in the extracellular fluid is assessed (*e.g.* using a labeled antibody which binds specifically with the protein).

The following is an example of a method which can be used to detect secretion of a protein corresponding to a marker of the invention. About 8×10^5 293T cells are incubated at 37°C in wells containing growth medium (Dulbecco's modified Eagle's medium {DMEM} supplemented with 10% fetal bovine serum) under a 5% (v/v) CO₂, 95% air atmosphere to about 60-70% confluence. The cells are then transfected using a standard transfection mixture comprising 2 micrograms of DNA comprising an expression vector encoding the protein and 10 microliters of LipofectAMINE™ (GIBCO/BRL Catalog no. 18342-012) per well. The transfection mixture is maintained for about 5 hours, and then replaced with fresh growth medium and maintained in an air atmosphere. Each well is gently rinsed twice with DMEM which does not contain

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methionine or cysteine (DMEM-MC; ICN Catalog no. 16-424- 54). About 1 milliliter of DMEM-MC and about 50 microcuries of Trans-³⁵STM reagent (ICN Catalog no. 51006) are added to each well. The wells are maintained under the 5% CO₂ atmosphere described above and incubated at 37°C for a selected period. Following incubation, 150
5 microliters of conditioned medium is removed and centrifuged to remove floating cells and debris. The presence of the protein in the supernatant is an indication that the protein is secreted.

Examples of ovary-associated body fluids include blood fluids (*e.g.* whole blood, blood serum, blood having platelets removed therefrom, etc.), lymph, ascitic fluids,
10 gynecological fluids (*e.g.* ovarian, fallopian, and uterine secretions, menses, vaginal douching fluids, fluids used to rinse cervical cell samples, etc.), cystic fluid, urine, and fluids collected by peritoneal rinsing (*e.g.* fluids applied and collected during laparoscopy or fluids instilled into and withdrawn from the peritoneal cavity of a human patient). In these embodiments, the level of expression of the marker can be assessed by
15 assessing the amount (*e.g.* absolute amount or concentration) of the marker in an ovary-associated body fluid obtained from a patient. The fluid can, of course, be subjected to a variety of well-known post-collection preparative and storage techniques (*e.g.* storage, freezing, ultrafiltration, concentration, evaporation, centrifugation, etc.) prior to assessing the amount of the marker in the fluid.

20 Many ovary-associated body fluids (*i.e.* usually excluding urine) can have ovarian cells, *e.g.* ovarian epithelium, therein, particularly when the ovarian cells are cancerous, and, more particularly, when the ovarian cancer is metastasizing. Cell-containing fluids which can contain ovarian cancer cells include, but are not limited to, peritoneal ascites, fluids collected by peritoneal rinsing, fluids collected by uterine
25 rinsing, uterine fluids such as uterine exudate and menses, pleural fluid, and ovarian exudates. Thus, the compositions, kits, and methods of the invention can be used to detect expression of markers corresponding to proteins having at least one portion which is displayed on the surface of cells which express it. Examples of such proteins are indicated in the Tables herein. Although not every protein having at least one cell-
30 surface portion is indicated in the Tables, it is a simple matter for the skilled artisan to determine whether the protein corresponding to any particular marker comprises a cell-surface protein. For example, immunological methods may be used to detect such

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proteins on whole cells, or well known computer-based sequence analysis methods (*e.g.* the SIGNALP program; Nielsen *et al.*, 1997, *Protein Engineering* 10:1-6) may be used to predict the presence of at least one extracellular domain (*i.e.* including both secreted proteins and proteins having at least one cell-surface domain). Expression of a marker
5 corresponding to a protein having at least one portion which is displayed on the surface of a cell which expresses it may be detected without necessarily lysing the cell (*e.g.* using a labeled antibody which binds specifically with a cell-surface domain of the protein).

Expression of a marker of the invention may be assessed by any of a wide
10 variety of well known methods for detecting expression of a transcribed molecule or protein. Non-limiting examples of such methods include immunological methods for detection of secreted, cell-surface, cytoplasmic, or nuclear proteins, protein purification methods, protein function or activity assays, nucleic acid hybridization methods, nucleic acid reverse transcription methods, and nucleic acid amplification methods.

15 In a preferred embodiment, expression of a marker is assessed using an antibody (*e.g.* a radio-labeled, chromophore-labeled, fluorophore-labeled, or enzyme-labeled antibody), an antibody derivative (*e.g.* an antibody conjugated with a substrate or with the protein or ligand of a protein-ligand pair {*e.g.* biotin-streptavidin}), or an antibody fragment (*e.g.* a single-chain antibody, an isolated antibody hypervariable domain, etc.)
20 which binds specifically with a protein corresponding to the marker, such as the protein encoded by the open reading frame corresponding to the marker or such a protein which has undergone all or a portion of its normal post-translational modification.

In another preferred embodiment, expression of a marker is assessed by preparing mRNA/cDNA (*i.e.* a transcribed polynucleotide) from cells in a patient
25 sample, and by hybridizing the mRNA/cDNA with a reference polynucleotide which is a complement of a polynucleotide comprising the marker, and fragments thereof. cDNA can, optionally, be amplified using any of a variety of polymerase chain reaction methods prior to hybridization with the reference polynucleotide; preferably, it is not amplified. Expression of one or more markers can likewise be detected using
30 quantitative PCR to assess the level of expression of the marker(s). Alternatively, any of the many known methods of detecting mutations or variants (*e.g.* single nucleotide

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polymorphisms, deletions, etc.) of a marker of the invention may be used to detect occurrence of a marker in a patient.

In a related embodiment, a mixture of transcribed polynucleotides obtained from the sample is contacted with a substrate having fixed thereto a polynucleotide
5 complementary to or homologous with at least a portion (*e.g.* at least 7, 10, 15, 20, 25, 30, 40, 50, 100, 500, or more nucleotide residues) of a marker of the invention. If polynucleotides complementary to or homologous with are differentially detectable on the substrate (*e.g.* detectable using different chromophores or fluorophores, or fixed to different selected positions), then the levels of expression of a plurality of markers can
10 be assessed simultaneously using a single substrate (*e.g.* a "gene chip" microarray of polynucleotides fixed at selected positions). When a method of assessing marker expression is used which involves hybridization of one nucleic acid with another, it is preferred that the hybridization be performed under stringent hybridization conditions.

Because the compositions, kits, and methods of the invention rely on detection of
15 a difference in expression levels of one or more markers of the invention, it is preferable that the level of expression of the marker is significantly greater than the minimum detection limit of the method used to assess expression in at least one of normal ovarian cells and cancerous ovarian cells.

It is understood that by routine screening of additional patient samples using one
20 or more of the markers of the invention, it will be realized that certain of the markers are over- or under-expressed in cancers of various types, including specific ovarian cancers, as well as other cancers such as breast cancer, cervical cancer, etc. For example, it will be confirmed that some of the markers of the invention are over- or under-expressed in most (*i.e.* 50% or more) or substantially all (*i.e.* 80% or more) of ovarian cancer.
25 Furthermore, it will be confirmed that certain of the markers of the invention are associated with ovarian cancer of various stages (*i.e.* stage I, II, III, and IV ovarian cancers, as well as subclassifications IA, IB, IC, IIA, IIB, IIC, IIIA, IIIB, and IIIC, using the FIGO Stage Grouping system for primary carcinoma of the ovary; 1987, *Am. J. Obstet. Gynecol.* 156:236), of various histologic subtypes (*e.g.* serous, mucinous,
30 endometrioid, and clear cell subtypes, as well as subclassifications and alternate classifications adenocarcinoma, papillary adenocarcinoma, papillary cystadenocarcinoma, surface papillary carcinoma, malignant adenofibroma,

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cystadenofibroma, adenocarcinoma, cystadenocarcinoma, adenoacanthoma, endometrioid stromal sarcoma, mesodermal (Müllerian) mixed tumor, mesonephroid tumor, malignant carcinoma, Brenner tumor, mixed epithelial tumor, and undifferentiated carcinoma, using the WHO/FIGO system for classification of malignant ovarian tumors; Scully, *Atlas of Tumor Pathology*, 3d series, Washington DC), and various grades (*i.e.* grade I {well differentiated}, grade II {moderately well differentiated}, and grade III {poorly differentiated from surrounding normal tissue}). In addition, as a greater number of patient samples are assessed for expression of the markers of the invention and the outcomes of the individual patients from whom the samples were obtained are correlated, it will also be confirmed that altered expression of certain of the markers of the invention are strongly correlated with malignant cancers and that altered expression of other markers of the invention are strongly correlated with benign tumors. The compositions, kits, and methods of the invention are thus useful for characterizing one or more of the stage, grade, histological type, and benign/malignant nature of ovarian cancer in patients. In addition, these compositions, kits, and methods can be used to detect and differentiate epithelial, stromal, and germ cell ovarian cancers.

When the compositions, kits, and methods of the invention are used for characterizing one or more of the stage, grade, histological type, and benign/malignant nature of ovarian cancer in a patient, it is preferred that the marker or panel of markers of the invention is selected such that a positive result is obtained in at least about 20%, and preferably at least about 40%, 60%, or 80%, and more preferably in substantially all patients afflicted with an ovarian cancer of the corresponding stage, grade, histological type, or benign/malignant nature. Preferably, the marker or panel of markers of the invention is selected such that a PPV of greater than about 10% is obtained for the general population (more preferably coupled with an assay specificity greater than 99.5%).

When a plurality of markers of the invention are used in the compositions, kits, and methods of the invention, the level of expression of each marker in a patient sample can be compared with the normal level of expression of each of the plurality of markers in non-cancerous samples of the same type, either in a single reaction mixture (*i.e.* using reagents, such as different fluorescent probes, for each marker) or in individual reaction mixtures corresponding to one or more of the markers. In one embodiment, a

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significantly enhanced level of expression of more than one of the plurality of markers in the sample, relative to the corresponding normal levels, is an indication that the patient is afflicted with ovarian cancer. In another embodiment, a significantly lower level of expression in the sample of each of the plurality of markers, relative to the

5 corresponding normal levels, is an indication that the patient is afflicted with ovarian cancer. In yet another embodiment, a significantly enhanced level of expression of one or more marks and a significantly lower level of expression of one or more markers in a sample relative to the corresponding normal levels, is an indication that the patient is afflicted with ovarian cancer. When a plurality of markers is used, it is preferred that 2,

10 3, 4, 5, 8, 10, 12, 15, 20, 30, or 50 or more individual markers be used, wherein fewer markers are preferred.

In order to maximize the sensitivity of the compositions, kits, and methods of the invention (*i.e.* by interference attributable to cells of non-ovarian origin in a patient sample), it is preferable that the marker of the invention used therein be a marker which

15 has a restricted tissue distribution, *e.g.*, normally not expressed in a non-epithelial tissue, and more preferably a marker which is normally not expressed in a non-ovarian tissue.

Only a small number of markers are known to be associated with ovarian cancers (*e.g.* *AKT2*, *Ki-RAS*, *ERBB2*, *c-MYC*, *RB1*, and *TP53*; Lynch, *supra*). These markers are not, of course, included among the markers of the invention, although they may be used

20 together with one or more markers of the invention in a panel of markers, for example. It is well known that certain types of genes, such as oncogenes, tumor suppressor genes, growth factor-like genes, protease-like genes, and protein kinase-like genes are often involved with development of cancers of various types. Thus, among the markers of the invention, use of those which correspond to proteins which resemble known proteins

25 encoded by known oncogenes and tumor suppressor genes, and those which correspond to proteins which resemble growth factors, proteases, and protein kinases are preferred.

Known oncogenes and tumor suppressor genes include, for example, *abl*, *abr*, *akt2*, *apc*, *bcl2 α* , *bcl2 β* , *bcl3*, *bcr*, *brca1*, *brca2*, *cbl*, *ccnd1*, *cdc42*, *cdk4*, *crk-II*, *csf1r/fms*, *dbl*, *dcc*, *dpc4/smad4*, *e-cad*, *e2f1/rbap*, *egfr/erbb-1*, *elk1*, *elk3*, *eph*, *erg*, *ets1*,

30 *ets2*, *fer*, *fgr/src2*, *fli1/ergb2*, *fos*, *fps/fes*, *fra1*, *fra2*, *fyn*, *hck*, *hek*, *her2/erbb-2/neu*, *her3/erbb-3*, *her4/erbb-4*, *hras1*, *hst2*, *hstf1*, *igfbp2*, *ink4a*, *ink4b*, *int2/fgf3*, *jun*, *junb*, *jund*, *kip2*, *kit*, *kras2a*, *kras2b*, *lck*, *lyn*, *mas*, *max*, *mcc*, *mdm2*, *met*, *mlh1*, *mmp10*, *mos*,

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- msh2, msh3, msh6, myb, myba, mybb, myc, mycl1, mycn, nfi1, nf2, nme2, nras, p53, pdgfb, phb, pim1, pms1, pms2, ptc, pten, raf1, rap1a, rbl, rel, ret, rosl, ski, src1, tall, tgfb2, tgfb3, tgfb3, thra1, thrb, tiam1, timp3, tjpl, tp53, trk, vav, vhl, vil2, waf1, wnt1, wnt2, wt1, and yes1* (Hesketh, 1997, In: *The Oncogene and Tumour Suppressor Gene Facts Book*, 2nd Ed., Academic Press; Fishel *et al.*, 1994, *Science* 266:1403-1405).

- Known growth factors include platelet-derived growth factor alpha, platelet-derived growth factor beta (simian sarcoma viral {v-sis} oncogene homolog), thrombopoietin (myeloproliferative leukemia virus oncogene ligand, megakaryocyte growth and development factor), erythropoietin, B cell growth factor, macrophage stimulating factor 1 (hepatocyte growth factor-like protein), hepatocyte growth factor (hepapoietin A), insulin-like growth factor 1 (somatomedia C), hepatoma-derived growth factor, amphiregulin (schwannoma-derived growth factor), bone morphogenetic proteins 1, 2, 3, 3 beta, and 4, bone morphogenetic protein 7 (osteogenic protein 1), bone morphogenetic protein 8 (osteogenic protein 2), connective tissue growth factor, connective tissue activation peptide 3, epidermal growth factor (EGF), teratocarcinoma-derived growth factor 1, endothelin, endothelin 2, endothelin 3, stromal cell-derived factor 1, vascular endothelial growth factor (VEGF), VEGF-B, VEGF-C, placental growth factor (vascular endothelial growth factor-related protein), transforming growth factor alpha, transforming growth factor beta 1 and its precursors, transforming growth factor beta 2 and its precursors, fibroblast growth factor 1 (acidic), fibroblast growth factor 2 (basic), fibroblast growth factor 5 and its precursors, fibroblast growth factor 6 and its precursors, fibroblast growth factor 7 (keratinocyte growth factor), fibroblast growth factor 8 (androgen-induced), fibroblast growth factor 9 (glia-activating factor), pleiotrophin (heparin binding growth factor 8, neurite growth-promoting factor 1), brain-derived neurotrophic factor, and recombinant glial growth factor 2.

- Known proteases include interleukin-1 beta convertase and its precursors, Mch6 and its precursors, Mch2 isoform alpha, Mch4, Cpp32 isoform alpha, Lice2 gamma cysteine protease, Ich-1S, Ich-1L, Ich-2 and its precursors, TY protease, matrix metalloproteinase 1 (interstitial collagenase), matrix metalloproteinase 2 (gelatinase A, 72kD gelatinase, 72kD type IV collagenase), matrix metalloproteinase 7 (matrilysin), matrix metalloproteinase 8 (neutrophil collagenase), matrix metalloproteinase 12 (macrophage elastase), matrix metalloproteinase 13 (collagenase 3), metalloproteinase 1,

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- cysteine-rich metalloprotease (disintegrin) and its precursors, subtilisin-like protease Pc8 and its precursors, chymotrypsin, snake venom-like protease, cathepsin I, cathepsin D (lysosomal aspartyl protease), stromelysin, aminopeptidase N, plasminogen, tissue plasminogen activator, plasminogen activator inhibitor type II, and urokinase-type
- 5 plasminogen activator.

- Known protein kinases include DAP kinase, serine/threonine protein kinases NIK, PK428, Krs-2, SAK, and EMK, interferon-inducible double stranded RNA dependent protein kinase, FAST kinase, AIM1, IPL1-like midbody-associated protein kinase-1, NIMA-like protein kinase 1 (NLK1), the cyclin-dependent kinases (cdk1-10),
- 10 checkpoint kinase Chk1, Nek3 protein kinase, BMK1 beta kinase, Clk1, Clk2, Clk3, extracellular signal-regulated kinases 1, 3, and 6, cdc28 protein kinase 1, cdc28 protein kinase 2, pLK, Myt1, c-Jun N-terminal kinase 2, Cam kinase 1, the MAP kinases, insulin-stimulated protein kinase 1, beta-adrenergic receptor kinase 2, ribosomal protein S6 kinase, kinase suppressor of ras-1 (KSR1), putative serine/threonine protein kinase
- 15 Prk, PkB kinase, cAMP-dependent protein kinase, cGMP-dependent protein kinase, type II cGMP-dependent protein kinase, protein kinases Dyrk2, Dyrk3, and Dyrk4, Rho-associated coiled-coil containing protein kinase p160ROCK, protein tyrosine kinase t-Ror1, Ste20-related kinases, cell adhesion kinase beta, protein kinase 3, stress-activated protein kinase 4, protein kinase Zpk, serine kinase hPAK65, dual specificity mitogen-
- 20 activated protein kinases 1 and 2, casein kinase I gamma 2, p21-activated protein kinase Pak1, lipid-activated protein kinase PRK2, focal adhesion kinase, dual-specificity tyrosine-phosphorylation regulated kinase, myosin light chain kinase, serine kinases SRPK2, TESK1, and VRK2, B lymphocyte serine/threonine protein kinase, stress-activated protein kinases JNK1 and JNK2, phosphorylase kinase, protein tyrosine kinase
- 25 Tec, Jak2 kinase, protein kinase Ndr, MEK kinase 3, SHB adaptor protein (a Src homology 2 protein), agammaglobulinaemia protein-tyrosine kinase (Atk), protein kinase ATR, guanylate kinase 1, thrombopoietin receptor and its precursors, DAG kinase epsilon, and kinases encoded by oncogenes or viral oncogenes such as v-fgr (Gardner-Rasheed), v-abl (Abelson murine leukemia viral oncogene homolog 1), v-arg
- 30 (Abelson murine leukemia viral oncogene homolog, Abelson-related gene), v-fes and v-fps (feline sarcoma viral oncogene and Fujinami avian sarcoma viral oncogene homologs), proto-oncogene *c-cot*, oncogene *pim-1*, and oncogene *mas1*.

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It is recognized that the compositions, kits, and methods of the invention will be of particular utility to patients having an enhanced risk of developing ovarian cancer and their medical advisors. Patients recognized as having an enhanced risk of developing ovarian cancer include, for example, patients having a familial history of ovarian cancer, 5 patients identified as having a mutant oncogene (*i.e.* at least one allele), and patients of advancing age (*i.e.* women older than about 50 or 60 years).

The level of expression of a marker in normal (*i.e.* non-cancerous) human ovarian tissue can be assessed in a variety of ways. In one embodiment, this normal level of expression is assessed by assessing the level of expression of the marker in a 10 portion of ovarian cells which appears to be non-cancerous and by comparing this normal level of expression with the level of expression in a portion of the ovarian cells which is suspected of being cancerous. For example, when laparoscopy or other medical procedure, reveals the presence of a lump on one portion of a patient's ovary, but not on another portion of the same ovary or on the other ovary, the normal level of 15 expression of a marker may be assessed using one or both of the non-affected ovary and a non-affected portion of the affected ovary, and this normal level of expression may be compared with the level of expression of the same marker in an affected portion (*i.e.* the lump) of the affected ovary. Alternately, and particularly as further information becomes available as a result of routine performance of the methods described herein, 20 population-average values for normal expression of the markers of the invention may be used. In other embodiments, the 'normal' level of expression of a marker may be determined by assessing expression of the marker in a patient sample obtained from a non-cancer-afflicted patient, from a patient sample obtained from a patient before the suspected onset of ovarian cancer in the patient, from archived patient samples, and the 25 like.

The invention includes compositions, kits, and methods for assessing the presence of ovarian cancer cells in a sample (*e.g.* an archived tissue sample or a sample obtained from a patient). These compositions, kits, and methods are substantially the same as those described above, except that, where necessary, the compositions, kits, and 30 methods are adapted for use with samples other than patient samples. For example, when the sample to be used is a paraffinized, archived human tissue sample, it can be necessary to adjust the ratio of compounds in the compositions of the invention, in the

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kits of the invention, or the methods used to assess levels of marker expression in the sample. Such methods are well known in the art and within the skill of the ordinary artisan.

The invention includes a kit for assessing the presence of ovarian cancer cells
5 (e.g. in a sample such as a patient sample). The kit comprises a plurality of reagents, each of which is capable of binding specifically with a nucleic acid or polypeptide corresponding to a marker of the invention. Suitable reagents for binding with a polypeptide corresponding to a marker of the invention include antibodies, antibody derivatives, antibody fragments, and the like. Suitable reagents for binding with a
10 nucleic acid (e.g. a genomic DNA, an mRNA, a spliced mRNA, a cDNA, or the like) include complementary nucleic acids. For example, the nucleic acid reagents may include oligonucleotides (labeled or non-labeled) fixed to a substrate, labeled oligonucleotides not bound with a substrate, pairs of PCR primers, molecular beacon probes, and the like.

15 The kit of the invention may optionally comprise additional components useful for performing the methods of the invention. By way of example, the kit may comprise fluids (e.g. SSC buffer) suitable for annealing complementary nucleic acids or for binding an antibody with a protein with which it specifically binds, one or more sample compartments, an instructional material which describes performance of a method of the
20 invention, a sample of normal ovarian cells, a sample of ovarian cancer cells, and the like.

The invention also includes a method of making an isolated hybridoma which produces an antibody useful for assessing whether patient is afflicted with an ovarian cancer. In this method, a protein corresponding to a marker of the invention is isolated
25 (e.g. by purification from a cell in which it is expressed or by transcription and translation of a nucleic acid encoding the protein *in vivo* or *in vitro* using known methods). A vertebrate, preferably a mammal such as a mouse, rat, rabbit, or sheep, is immunized using the isolated protein. The vertebrate may optionally (and preferably) be immunized at least one additional time with the isolated protein, so that the vertebrate
30 exhibits a robust immune response to the protein. Splenocytes are isolated from the immunized vertebrate and fused with an immortalized cell line to form hybridomas, using any of a variety of methods well known in the art. Hybridomas formed in this

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manner are then screened using standard methods to identify one or more hybridomas which produce an antibody which specifically binds with the protein. The invention also includes hybridomas made by this method and antibodies made using such hybridomas.

5 The invention also includes a method of assessing the efficacy of a test compound for inhibiting ovarian cancer cells. As described above, differences in the level of expression of the markers of the invention correlate with the cancerous state of ovarian cells. Although it is recognized that changes in the levels of expression of certain of the markers of the invention likely result from the cancerous state of ovarian
10 cells, it is likewise recognized that changes in the levels of expression of other of the markers of the invention induce, maintain, and promote the cancerous state of those cells. Thus, compounds which inhibit an ovarian cancer in a patient will cause the level of expression of one or more of the markers of the invention to change to a level nearer the normal level of expression for that marker (*i.e.* the level of expression for the marker
15 in non-cancerous ovarian cells).

 This method thus comprises comparing expression of a marker in a first ovarian cell sample and maintained in the presence of the test compound and expression of the marker in a second ovarian cell sample and maintained in the absence of the test compound. A significant alteration in the level of expression of a marker listed in
20 Tables 1-2 is an indication that the test compound inhibits ovarian cancer. The ovarian cell samples may, for example, be aliquots of a single sample of normal ovarian cells obtained from a patient, pooled samples of normal ovarian cells obtained from a patient, cells of a normal ovarian cell line, aliquots of a single sample of ovarian cancer cells obtained from a patient, pooled samples of ovarian cancer cells obtained from a patient,
25 cells of an ovarian cancer cell line, or the like. In one embodiment, the samples are ovarian cancer cells obtained from a patient and a plurality of compounds known to be effective for inhibiting various ovarian cancers are tested in order to identify the compound which is likely to best inhibit the ovarian cancer in the patient.

 This method may likewise be used to assess the efficacy of a therapy for
30 inhibiting ovarian cancer in a patient. In this method, the level of expression of one or more markers of the invention in a pair of samples (one subjected to the therapy, the other not subjected to the therapy) is assessed. As with the method of assessing the

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efficacy of test compounds, if the therapy induces a significant alteration in the level of expression of a marker listed in Tables 1-2 then the therapy is efficacious for inhibiting ovarian cancer. As above, if samples from a selected patient are used in this method, then alternative therapies can be assessed *in vitro* in order to select a therapy most likely to be efficacious for inhibiting ovarian cancer in the patient.

As described herein, ovarian cancer in patients is associated with an alteration in the level of expression of one or more markers listed in Tables 1-2. While, as discussed above, some of these changes in expression level result from occurrence of the ovarian cancer, others of these changes induce, maintain, and promote the cancerous state of ovarian cancer cells. Thus, ovarian cancer characterized by an increase in the level of expression of one or more markers listed in either or both of Tables 1-2 can be inhibited by inhibiting expression of those markers.

Expression of a marker listed in Tables 1-2 can be inhibited in a number of ways generally known in the art. For example, an antisense oligonucleotide can be provided to the ovarian cancer cells in order to inhibit transcription, translation, or both, of the marker(s). Alternately, a polynucleotide encoding an antibody, an antibody derivative, or an antibody fragment, and operably linked with an appropriate promoter/regulator region, can be provided to the cell in order to generate intracellular antibodies which will inhibit the function or activity of the protein corresponding to the marker(s). Using the methods described herein, a variety of molecules, particularly including molecules sufficiently small that they are able to cross the cell membrane, can be screened in order to identify molecules which inhibit expression of the marker(s). The compound so identified can be provided to the patient in order to inhibit expression of the marker(s) in the ovarian cancer cells of the patient.

Expression of a marker listed in Tables 1-2 can be enhanced in a number of ways generally known in the art. For example, a polynucleotide encoding the marker and operably linked with an appropriate promoter/regulator region can be provided to ovarian cancer cells of the patient in order to induce enhanced expression of the protein (and mRNA) corresponding to the marker therein. Alternatively, if the protein is capable of crossing the cell membrane, inserting itself in the cell membrane, or is normally a secreted protein, then expression of the protein can be enhanced by providing

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the protein (*e.g.* directly or by way of the bloodstream or another ovary-associated fluid) to ovarian cancer cells in the patient.

As described above, the cancerous state of human ovarian cells is correlated with changes in the levels of expression of the markers of the invention. The invention
5 includes a method for assessing the human ovarian cell carcinogenic potential of a test compound. This method comprises maintaining separate aliquots of human ovarian cells in the presence and absence of the test compound. Expression of a marker of the invention in each of the aliquots is compared. A significant alteration in the level of expression of a marker listed in Tables 1-2 in the aliquot maintained in the presence of
10 the test compound (relative to the aliquot maintained in the absence of the test compound) is an indication that the test compound possesses human ovarian cell carcinogenic potential. The relative carcinogenic potentials of various test compounds can be assessed by comparing the degree of enhancement or inhibition of the level of expression of the relevant markers, by comparing the number of markers for which the
15 level of expression is enhanced or inhibited, or by comparing both.

Various aspects of the invention are described in further detail in the following subsections.

I. Isolated Nucleic Acid Molecules

20 One aspect of the invention pertains to novel isolated nucleic acid molecules that correspond to a marker of the invention, including nucleic acids which encode a polypeptide corresponding to a marker of the invention or a portion of such a polypeptide. Isolated nucleic acids of the invention also include nucleic acid molecules sufficient for use as hybridization probes to identify nucleic acid molecules that
25 correspond to a marker of the invention, including nucleic acids which encode a polypeptide corresponding to a marker of the invention, and fragments of such nucleic acid molecules, *e.g.*, those suitable for use as PCR primers for the amplification or mutation of nucleic acid molecules. As used herein, the term "nucleic acid molecule" is intended to include DNA molecules (*e.g.*, cDNA or genomic DNA) and RNA molecules
30 (*e.g.*, mRNA) and analogs of the DNA or RNA generated using nucleotide analogs. The nucleic acid molecule can be single-stranded or double-stranded, but preferably is double-stranded DNA.

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An "isolated" nucleic acid molecule is one which is separated from other nucleic acid molecules which are present in the natural source of the nucleic acid molecule.

Preferably, an "isolated" nucleic acid molecule is free of sequences (preferably protein-encoding sequences) which naturally flank the nucleic acid (*i.e.*, sequences located at the

5 5' and 3' ends of the nucleic acid) in the genomic DNA of the organism from which the nucleic acid is derived. For example, in various embodiments, the isolated nucleic acid molecule can contain less than about 5 kB, 4 kB, 3 kB, 2 kB, 1 kB, 0.5 kB or 0.1 kB of nucleotide sequences which naturally flank the nucleic acid molecule in genomic DNA of the cell from which the nucleic acid is derived. Moreover, an "isolated" nucleic acid
10 molecule, such as a cDNA molecule, can be substantially free of other cellular material, or culture medium when produced by recombinant techniques, or substantially free of chemical precursors or other chemicals when chemically synthesized.

A nucleic acid molecule of the present invention can be isolated using standard molecular biology techniques and the sequence information in the database records
15 described herein. Using all or a portion of such nucleic acid sequences, nucleic acid molecules of the invention can be isolated using standard hybridization and cloning techniques (*e.g.*, as described in Sambrook *et al.*, ed., *Molecular Cloning: A Laboratory Manual*, 2nd ed., Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, 1989).

20 A nucleic acid molecule of the invention can be amplified using cDNA, mRNA, or genomic DNA as a template and appropriate oligonucleotide primers according to standard PCR amplification techniques. The nucleic acid so amplified can be cloned into an appropriate vector and characterized by DNA sequence analysis. Furthermore, oligonucleotides corresponding to all or a portion of a nucleic acid molecule of the
25 invention can be prepared by standard synthetic techniques, *e.g.*, using an automated DNA synthesizer.

In another preferred embodiment, an isolated nucleic acid molecule of the invention comprises a nucleic acid molecule which has a nucleotide sequence
complementary to the nucleotide sequence of a nucleic acid corresponding to a marker
30 of the invention or to the nucleotide sequence of a nucleic acid encoding a protein which corresponds to a marker of the invention. A nucleic acid molecule which is complementary to a given nucleotide sequence is one which is sufficiently

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complementary to the given nucleotide sequence that it can hybridize to the given nucleotide sequence thereby forming a stable duplex.

Moreover, a nucleic acid molecule of the invention can comprise only a portion of a nucleic acid sequence, wherein the full length nucleic acid sequence comprises a marker of the invention or which encodes a polypeptide corresponding to a marker of the invention. Such nucleic acids can be used, for example, as a probe or primer. The probe/primer typically is used as one or more substantially purified oligonucleotides. The oligonucleotide typically comprises a region of nucleotide sequence that hybridizes under stringent conditions to at least about 7, preferably about 15, more preferably about 25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, or 400 or more consecutive nucleotides of a nucleic acid of the invention.

Probes based on the sequence of a nucleic acid molecule of the invention can be used to detect transcripts or genomic sequences corresponding to one or more markers of the invention. The probe comprises a label group attached thereto, *e.g.*, a radioisotope, a fluorescent compound, an enzyme, or an enzyme co-factor. Such probes can be used as part of a diagnostic test kit for identifying cells or tissues which mis-express the protein, such as by measuring levels of a nucleic acid molecule encoding the protein in a sample of cells from a subject, *e.g.*, detecting mRNA levels or determining whether a gene encoding the protein has been mutated or deleted.

The invention further encompasses nucleic acid molecules that differ, due to degeneracy of the genetic code, from the nucleotide sequence of nucleic acids encoding a protein which corresponds to a marker of the invention, and thus encode the same protein.

It will be appreciated by those skilled in the art that DNA sequence polymorphisms that lead to changes in the amino acid sequence can exist within a population (*e.g.*, the human population). Such genetic polymorphisms can exist among individuals within a population due to natural allelic variation. An allele is one of a group of genes which occur alternatively at a given genetic locus. In addition, it will be appreciated that DNA polymorphisms that affect RNA expression levels can also exist that may affect the overall expression level of that gene (*e.g.*, by affecting regulation or degradation).

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As used herein, the phrase "allelic variant" refers to a nucleotide sequence which occurs at a given locus or to a polypeptide encoded by the nucleotide sequence.

As used herein, the terms "gene" and "recombinant gene" refer to nucleic acid molecules comprising an open reading frame encoding a polypeptide corresponding to a marker of the invention. Such natural allelic variations can typically result in 1-5% variance in the nucleotide sequence of a given gene. Alternative alleles can be identified by sequencing the gene of interest in a number of different individuals. This can be readily carried out by using hybridization probes to identify the same genetic locus in a variety of individuals. Any and all such nucleotide variations and resulting amino acid polymorphisms or variations that are the result of natural allelic variation and that do not alter the functional activity are intended to be within the scope of the invention.

In another embodiment, an isolated nucleic acid molecule of the invention is at least 7, 15, 20, 25, 30, 40, 60, 80, 100, 150, 200, 250, 300, 350, 400, 450, 550, 650, 700, 800, 900, 1000, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3500, 4000, 4500, or more nucleotides in length and hybridizes under stringent conditions to a nucleic acid corresponding to a marker of the invention or to a nucleic acid encoding a protein corresponding to a marker of the invention. As used herein, the term "hybridizes under stringent conditions" is intended to describe conditions for hybridization and washing under which nucleotide sequences at least 75% (80%, 85%, preferably 90%) identical to each other typically remain hybridized to each other. Such stringent conditions are known to those skilled in the art and can be found in sections 6.3.1-6.3.6 of *Current Protocols in Molecular Biology*, John Wiley & Sons, N.Y. (1989). A preferred, non-limiting example of stringent hybridization conditions for annealing two single-stranded DNA each of which is at least about 100 bases in length and/or for annealing a single-stranded DNA and a single-stranded RNA each of which is at least about 100 bases in length, are hybridization in 6X sodium chloride/sodium citrate (SSC) at about 45°C, followed by one or more washes in 0.2X SSC, 0.1% SDS at 50-65°C. Further preferred hybridization conditions are taught in Lockhart, *et al.*, *Nature Biotechnology*, Volume 14, 1996 August:1675-1680; Breslauer, *et al.*, *Proc. Natl. Acad. Sci. USA*, Volume 83, 1986 June: 3746-3750; Van Ness, *et al.*, *Nucleic Acids Research*, Volume 19, No. 19, 1991 September: 5143-5151; McGraw, *et al.*, *BioTechniques*,

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Volume 8, No. 6 1990: 674-678; and Milner, *et al.*, Nature Biotechnology, Volume 15, 1997 June: 537-541, all expressly incorporated by reference.

In addition to naturally-occurring allelic variants of a nucleic acid molecule of the invention that can exist in the population, the skilled artisan will further appreciate that sequence changes can be introduced by mutation thereby leading to changes in the amino acid sequence of the encoded protein, without altering the biological activity of the protein encoded thereby. For example, one can make nucleotide substitutions leading to amino acid substitutions at "non-essential" amino acid residues. A "non-essential" amino acid residue is a residue that can be altered from the wild-type sequence without altering the biological activity, whereas an "essential" amino acid residue is required for biological activity. For example, amino acid residues that are not conserved or only semi-conserved among homologs of various species may be non-essential for activity and thus would be likely targets for alteration. Alternatively, amino acid residues that are conserved among the homologs of various species (*e.g.*, murine and human) may be essential for activity and thus would not be likely targets for alteration.

Accordingly, another aspect of the invention pertains to nucleic acid molecules encoding a polypeptide of the invention that contain changes in amino acid residues that are not essential for activity. Such polypeptides differ in amino acid sequence from the naturally-occurring proteins which correspond to the markers of the invention, yet retain biological activity. In one embodiment, such a protein has an amino acid sequence that is at least about 40% identical, 50%, 60%, 70%, 80%, 90%, 95%, or 98% identical to the amino acid sequence of one of the proteins which correspond to the markers of the invention.

An isolated nucleic acid molecule encoding a variant protein can be created by introducing one or more nucleotide substitutions, additions or deletions into the nucleotide sequence of nucleic acids of the invention, such that one or more amino acid residue substitutions, additions, or deletions are introduced into the encoded protein. Mutations can be introduced by standard techniques, such as site-directed mutagenesis and PCR-mediated mutagenesis. Preferably, conservative amino acid substitutions are made at one or more predicted non-essential amino acid residues. A "conservative amino acid substitution" is one in which the amino acid residue is replaced with an

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amino acid residue having a similar side chain. Families of amino acid residues having similar side chains have been defined in the art. These families include amino acids with basic side chains (*e.g.*, lysine, arginine, histidine), acidic side chains (*e.g.*, aspartic acid, glutamic acid), uncharged polar side chains (*e.g.*, glycine, asparagine, glutamine, serine, threonine, tyrosine, cysteine), non-polar side chains (*e.g.*, alanine, valine, leucine, isoleucine, proline, phenylalanine, methionine, tryptophan), beta-branched side chains (*e.g.*, threonine, valine, isoleucine) and aromatic side chains (*e.g.*, tyrosine, phenylalanine, tryptophan, histidine). Alternatively, mutations can be introduced randomly along all or part of the coding sequence, such as by saturation mutagenesis, and the resultant mutants can be screened for biological activity to identify mutants that retain activity. Following mutagenesis, the encoded protein can be expressed recombinantly and the activity of the protein can be determined.

The present invention encompasses antisense nucleic acid molecules, *i.e.*, molecules which are complementary to a sense nucleic acid of the invention, *e.g.*, complementary to the coding strand of a double-stranded cDNA molecule corresponding to a marker of the invention or complementary to an mRNA sequence corresponding to a marker of the invention. Accordingly, an antisense nucleic acid of the invention can hydrogen bond to (*i.e.* anneal with) a sense nucleic acid of the invention. The antisense nucleic acid can be complementary to an entire coding strand, or to only a portion thereof, *e.g.*, all or part of the protein coding region (or open reading frame). An antisense nucleic acid molecule can also be antisense to all or part of a non-coding region of the coding strand of a nucleotide sequence encoding a polypeptide of the invention. The non-coding regions ("5' and 3' untranslated regions") are the 5' and 3' sequences which flank the coding region and are not translated into amino acids.

An antisense oligonucleotide can be, for example, about 5, 10, 15, 20, 25, 30, 35, 40, 45, or 50 or more nucleotides in length. An antisense nucleic acid of the invention can be constructed using chemical synthesis and enzymatic ligation reactions using procedures known in the art. For example, an antisense nucleic acid (*e.g.*, an antisense oligonucleotide) can be chemically synthesized using naturally occurring nucleotides or variously modified nucleotides designed to increase the biological stability of the molecules or to increase the physical stability of the duplex formed between the antisense and sense nucleic acids, *e.g.*, phosphorothioate derivatives and acridine

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substituted nucleotides can be used. Examples of modified nucleotides which can be used to generate the antisense nucleic acid include 5-fluorouracil, 5-bromouracil, 5-chlorouracil, 5-iodouracil, hypoxanthine, xanthine, 4-acetylcytosine, 5-(carboxyhydroxymethyl) uracil, 5-carboxymethylaminomethyl-2-thiouridine, 5-carboxymethylaminomethyluracil, dihydrouracil, beta-D-galactosylqueosine, inosine, N6-isopentenyladenine, 1-methylguanine, 1-methylinosine, 2,2-dimethylguanine, 2-methyladenine, 2-methylguanine, 3-methylcytosine, 5-methylcytosine, N6-adenine, 7-methylguanine, 5-methylaminomethyluracil, 5-methoxyaminomethyl-2-thiouracil, beta-D-mannosylqueosine, 5'-methoxycarboxymethyluracil, 5-methoxyuracil, 2-methylthio-N6-isopentenyladenine, uracil-5-oxyacetic acid (v), wybutoxosine, pseudouracil, queosine, 2-thiocytosine, 5-methyl-2-thiouracil, 2-thiouracil, 4-thiouracil, 5-methyluracil, uracil-5-oxyacetic acid methylester, uracil-5-oxyacetic acid (v), 5-methyl-2-thiouracil, 3-(3-amino-3-N-2-carboxypropyl) uracil, (acp3)w, and 2,6-diaminopurine. Alternatively, the antisense nucleic acid can be produced biologically using an expression vector into which a nucleic acid has been sub-cloned in an antisense orientation (*i.e.*, RNA transcribed from the inserted nucleic acid will be of an antisense orientation to a target nucleic acid of interest, described further in the following subsection).

The antisense nucleic acid molecules of the invention are typically administered to a subject or generated *in situ* such that they hybridize with or bind to cellular mRNA and/or genomic DNA encoding a polypeptide corresponding to a selected marker of the invention to thereby inhibit expression of the marker, *e.g.*, by inhibiting transcription and/or translation. The hybridization can be by conventional nucleotide complementarity to form a stable duplex, or, for example, in the case of an antisense nucleic acid molecule which binds to DNA duplexes, through specific interactions in the major groove of the double helix. Examples of a route of administration of antisense nucleic acid molecules of the invention includes direct injection at a tissue site or infusion of the antisense nucleic acid into an ovary-associated body fluid. Alternatively, antisense nucleic acid molecules can be modified to target selected cells and then administered systemically. For example, for systemic administration, antisense molecules can be modified such that they specifically bind to receptors or antigens expressed on a selected cell surface, *e.g.*, by linking the antisense nucleic acid molecules

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to peptides or antibodies which bind to cell surface receptors or antigens. The antisense nucleic acid molecules can also be delivered to cells using the vectors described herein. To achieve sufficient intracellular concentrations of the antisense molecules, vector constructs in which the antisense nucleic acid molecule is placed under the control of a strong pol II or pol III promoter are preferred.

An antisense nucleic acid molecule of the invention can be an α -anomeric nucleic acid molecule. An α -anomeric nucleic acid molecule forms specific double-stranded hybrids with complementary RNA in which, contrary to the usual α -units, the strands run parallel to each other (Gaultier *et al.*, 1987, *Nucleic Acids Res.* 15:6625-6641). The antisense nucleic acid molecule can also comprise a 2'-O-methylribonucleotide (Inoue *et al.*, 1987, *Nucleic Acids Res.* 15:6131-6148) or a chimeric RNA-DNA analogue (Inoue *et al.*, 1987, *FEBS Lett.* 215:327-330).

The invention also encompasses ribozymes. Ribozymes are catalytic RNA molecules with ribonuclease activity which are capable of cleaving a single-stranded nucleic acid, such as an mRNA, to which they have a complementary region. Thus, ribozymes (*e.g.*, hammerhead ribozymes as described in Haselhoff and Gerlach, 1988, *Nature* 334:585-591) can be used to catalytically cleave mRNA transcripts to thereby inhibit translation of the protein encoded by the mRNA. A ribozyme having specificity for a nucleic acid molecule encoding a polypeptide corresponding to a marker of the invention can be designed based upon the nucleotide sequence of a cDNA corresponding to the marker. For example, a derivative of a *Tetrahymena* L-19 IVS RNA can be constructed in which the nucleotide sequence of the active site is complementary to the nucleotide sequence to be cleaved (see Cech *et al.* U.S. Patent No. 4,987,071; and Cech *et al.* U.S. Patent No. 5,116,742). Alternatively, an mRNA encoding a polypeptide of the invention can be used to select a catalytic RNA having a specific ribonuclease activity from a pool of RNA molecules (see, *e.g.*, Bartel and Szostak, 1993, *Science* 261:1411-1418).

The invention also encompasses nucleic acid molecules which form triple helical structures. For example, expression of a polypeptide of the invention can be inhibited by targeting nucleotide sequences complementary to the regulatory region of the gene encoding the polypeptide (*e.g.*, the promoter and/or enhancer) to form triple helical structures that prevent transcription of the gene in target cells. See generally Helene

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(1991) *Anticancer Drug Des.* 6(6):569-84; Helene (1992) *Ann. N.Y. Acad. Sci.* 660:27-36; and Maher (1992) *Bioassays* 14(12):807-15.

In various embodiments, the nucleic acid molecules of the invention can be modified at the base moiety, sugar moiety or phosphate backbone to improve, *e.g.*, the stability, hybridization, or solubility of the molecule. For example, the deoxyribose phosphate backbone of the nucleic acids can be modified to generate peptide nucleic acids (see Hyrup *et al.*, 1996, *Bioorganic & Medicinal Chemistry* 4(1): 5-23). As used herein, the terms "peptide nucleic acids" or "PNAs" refer to nucleic acid mimics, *e.g.*, DNA mimics, in which the deoxyribose phosphate backbone is replaced by a pseudopeptide backbone and only the four natural nucleobases are retained. The neutral backbone of PNAs has been shown to allow for specific hybridization to DNA and RNA under conditions of low ionic strength. The synthesis of PNA oligomers can be performed using standard solid phase peptide synthesis protocols as described in Hyrup *et al.* (1996), *supra*; Perry-O'Keefe *et al.* (1996) *Proc. Natl. Acad. Sci. USA* 93:14670-675.

PNAs can be used in therapeutic and diagnostic applications. For example, PNAs can be used as antisense or antigene agents for sequence-specific modulation of gene expression by, *e.g.*, inducing transcription or translation arrest or inhibiting replication. PNAs can also be used, *e.g.*, in the analysis of single base pair mutations in a gene by, *e.g.*, PNA directed PCR clamping; as artificial restriction enzymes when used in combination with other enzymes, *e.g.*, S1 nucleases (Hyrup (1996), *supra*; or as probes or primers for DNA sequence and hybridization (Hyrup, 1996, *supra*; Perry-O'Keefe *et al.*, 1996, *Proc. Natl. Acad. Sci. USA* 93:14670-675).

In another embodiment, PNAs can be modified, *e.g.*, to enhance their stability or cellular uptake, by attaching lipophilic or other helper groups to PNA, by the formation of PNA-DNA chimeras, or by the use of liposomes or other techniques of drug delivery known in the art. For example, PNA-DNA chimeras can be generated which can combine the advantageous properties of PNA and DNA. Such chimeras allow DNA recognition enzymes, *e.g.*, RNASE H and DNA polymerases, to interact with the DNA portion while the PNA portion would provide high binding affinity and specificity. PNA-DNA chimeras can be linked using linkers of appropriate lengths selected in terms of base stacking, number of bonds between the nucleobases, and orientation (Hyrup,

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1996, *supra*). The synthesis of PNA-DNA chimeras can be performed as described in Hyrup (1996), *supra*, and Finn *et al.* (1996) *Nucleic Acids Res.* 24(17):3357-63. For example, a DNA chain can be synthesized on a solid support using standard phosphoramidite coupling chemistry and modified nucleoside analogs. Compounds
5 such as 5'-(4-methoxytrityl)amino-5'-deoxy-thymidine phosphoramidite can be used as a link between the PNA and the 5' end of DNA (Mag *et al.*, 1989, *Nucleic Acids Res.* 17:5973-88). PNA monomers are then coupled in a step-wise manner to produce a chimeric molecule with a 5' PNA segment and a 3' DNA segment (Finn *et al.*, 1996, *Nucleic Acids Res.* 24(17):3357-63). Alternatively, chimeric molecules can be
10 synthesized with a 5' DNA segment and a 3' PNA segment (Peterser *et al.*, 1975, *Bioorganic Med. Chem. Lett.* 5:1119-11124).

In other embodiments, the oligonucleotide can include other appended groups such as peptides (*e.g.*, for targeting host cell receptors *in vivo*), or agents facilitating transport across the cell membrane (see, *e.g.*, Letsinger *et al.*, 1989, *Proc. Natl. Acad. Sci. USA* 86:6553-6556; Lemaitre *et al.*, 1987, *Proc. Natl. Acad. Sci. USA* 84:648-652;
15 PCT Publication No. WO 88/09810) or the blood-brain barrier (see, *e.g.*, PCT Publication No. WO 89/10134). In addition, oligonucleotides can be modified with hybridization-triggered cleavage agents (see, *e.g.*, Krol *et al.*, 1988, *Bio/Techniques* 6:958-976) or intercalating agents (see, *e.g.*, Zon, 1988, *Pharm. Res.* 5:539-549). To
20 this end, the oligonucleotide can be conjugated to another molecule, *e.g.*, a peptide, hybridization triggered cross-linking agent, transport agent, hybridization-triggered cleavage agent, etc.

The invention also includes molecular beacon nucleic acids having at least one region which is complementary to a nucleic acid of the invention, such that the
25 molecular beacon is useful for quantitating the presence of the nucleic acid of the invention in a sample. A "molecular beacon" nucleic acid is a nucleic acid comprising a pair of complementary regions and having a fluorophore and a fluorescent quencher associated therewith. The fluorophore and quencher are associated with different portions of the nucleic acid in such an orientation that when the complementary regions
30 are annealed with one another, fluorescence of the fluorophore is quenched by the quencher. When the complementary regions of the nucleic acid are not annealed with

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one another, fluorescence of the fluorophore is quenched to a lesser degree. Molecular beacon nucleic acids are described, for example, in U.S. Patent 5,876,930.

II. Isolated Proteins and Antibodies

- 5 One aspect of the invention pertains to isolated proteins which correspond to individual markers of the invention, and biologically active portions thereof, as well as polypeptide fragments suitable for use as immunogens to raise antibodies directed against a polypeptide corresponding to a marker of the invention. In one embodiment, the native polypeptide corresponding to a marker can be isolated from cells or tissue
- 10 sources by an appropriate purification scheme using standard protein purification techniques. In another embodiment, polypeptides corresponding to a marker of the invention are produced by recombinant DNA techniques. Alternative to recombinant expression, a polypeptide corresponding to a marker of the invention can be synthesized chemically using standard peptide synthesis techniques.
- 15 An "isolated" or "purified" protein or biologically active portion thereof is substantially free of cellular material or other contaminating proteins from the cell or tissue source from which the protein is derived, or substantially free of chemical precursors or other chemicals when chemically synthesized. The language "substantially free of cellular material" includes preparations of protein in which the
- 20 protein is separated from cellular components of the cells from which it is isolated or recombinantly produced. Thus, protein that is substantially free of cellular material includes preparations of protein having less than about 30%, 20%, 10%, or 5% (by dry weight) of heterologous protein (also referred to herein as a "contaminating protein"). When the protein or biologically active portion thereof is recombinantly produced, it is
- 25 also preferably substantially free of culture medium, *i.e.*, culture medium represents less than about 20%, 10%, or 5% of the volume of the protein preparation. When the protein is produced by chemical synthesis, it is preferably substantially free of chemical precursors or other chemicals, *i.e.*, it is separated from chemical precursors or other chemicals which are involved in the synthesis of the protein. Accordingly such
- 30 preparations of the protein have less than about 30%, 20%, 10%, 5% (by dry weight) of chemical precursors or compounds other than the polypeptide of interest.

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Biologically active portions of a polypeptide corresponding to a marker of the invention include polypeptides comprising amino acid sequences sufficiently identical to or derived from the amino acid sequence of the protein corresponding to the marker, which include fewer amino acids than the full length protein, and exhibit at least one activity of the corresponding full-length protein. Typically, biologically active portions comprise a domain or motif with at least one activity of the corresponding protein. A biologically active portion of a protein of the invention can be a polypeptide which is, for example, 10, 25, 50, 100 or more amino acids in length. Moreover, other biologically active portions, in which other regions of the protein are deleted, can be prepared by recombinant techniques and evaluated for one or more of the functional activities of the native form of a polypeptide of the invention.

Preferred polypeptides are encoded by the nucleotide sequences of Tables 1-2. Other useful proteins are substantially identical (*e.g.*, at least about 40%, preferably 50%, 60%, 70%, 80%, 90%, 95%, or 99%) to one of these sequences and retain the functional activity of the protein of the corresponding naturally-occurring protein yet differ in amino acid sequence due to natural allelic variation or mutagenesis.

To determine the percent identity of two amino acid sequences or of two nucleic acids, the sequences are aligned for optimal comparison purposes (*e.g.*, gaps can be introduced in the sequence of a first amino acid or nucleic acid sequence for optimal alignment with a second amino or nucleic acid sequence). The amino acid residues or nucleotides at corresponding amino acid positions or nucleotide positions are then compared. When a position in the first sequence is occupied by the same amino acid residue or nucleotide as the corresponding position in the second sequence, then the molecules are identical at that position. The percent identity between the two sequences is a function of the number of identical positions shared by the sequences (*i.e.*, % identity = # of identical positions/total # of positions (*e.g.*, overlapping positions) $\times 100$). In one embodiment the two sequences are the same length.

The determination of percent identity between two sequences can be accomplished using a mathematical algorithm. A preferred, non-limiting example of a mathematical algorithm utilized for the comparison of two sequences is the algorithm of Karlin and Altschul (1990) *Proc. Natl. Acad. Sci. USA* 87:2264-2268, modified as in Karlin and Altschul (1993) *Proc. Natl. Acad. Sci. USA* 90:5873-5877. Such an

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algorithm is incorporated into the NBLAST and XBLAST programs of Altschul, *et al.* (1990) *J. Mol. Biol.* 215:403-410. BLAST nucleotide searches can be performed with the NBLAST program, score = 100, wordlength = 12 to obtain nucleotide sequences homologous to a nucleic acid molecules of the invention. BLAST protein searches can be performed with the XBLAST program, score = 50, wordlength = 3 to obtain amino acid sequences homologous to a protein molecules of the invention. To obtain gapped alignments for comparison purposes, Gapped BLAST can be utilized as described in Altschul *et al.* (1997) *Nucleic Acids Res.* 25:3389-3402. Alternatively, PSI-Blast can be used to perform an iterated search which detects distant relationships between molecules. When utilizing BLAST, Gapped BLAST, and PSI-Blast programs, the default parameters of the respective programs (*e.g.*, XBLAST and NBLAST) can be used. See <http://www.ncbi.nlm.nih.gov>. Another preferred, non-limiting example of a mathematical algorithm utilized for the comparison of sequences is the algorithm of Myers and Miller, (1988) *CABIOS* 4:11-17. Such an algorithm is incorporated into the ALIGN program (version 2.0) which is part of the GCG sequence alignment software package. When utilizing the ALIGN program for comparing amino acid sequences, a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4 can be used. Yet another useful algorithm for identifying regions of local sequence similarity and alignment is the FASTA algorithm as described in Pearson and Lipman (1988) *Proc. Natl. Acad. Sci. USA* 85:2444-2448. When using the FASTA algorithm for comparing nucleotide or amino acid sequences, a PAM120 weight residue table can, for example, be used with a *k*-tuple value of 2.

The percent identity between two sequences can be determined using techniques similar to those described above, with or without allowing gaps. In calculating percent identity, only exact matches are counted.

The invention also provides chimeric or fusion proteins corresponding to a marker of the invention. As used herein, a "chimeric protein" or "fusion protein" comprises all or part (preferably a biologically active part) of a polypeptide corresponding to a marker of the invention operably linked to a heterologous polypeptide (*i.e.*, a polypeptide other than the polypeptide corresponding to the marker). Within the fusion protein, the term "operably linked" is intended to indicate that the polypeptide of the invention and the heterologous polypeptide are fused in-frame to each

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other. The heterologous polypeptide can be fused to the amino-terminus or the carboxyl-terminus of the polypeptide of the invention.

One useful fusion protein is a GST fusion protein in which a polypeptide corresponding to a marker of the invention is fused to the carboxyl terminus of GST sequences. Such fusion proteins can facilitate the purification of a recombinant polypeptide of the invention.

In another embodiment, the fusion protein contains a heterologous signal sequence at its amino terminus. For example, the native signal sequence of a polypeptide corresponding to a marker of the invention can be removed and replaced with a signal sequence from another protein. For example, the gp67 secretory sequence of the baculovirus envelope protein can be used as a heterologous signal sequence (Ausubel *et al.*, ed., *Current Protocols in Molecular Biology*, John Wiley & Sons, NY, 1992). Other examples of eukaryotic heterologous signal sequences include the secretory sequences of melittin and human placental alkaline phosphatase (Stratagene; La Jolla, California). In yet another example, useful prokaryotic heterologous signal sequences include the phoA secretory signal (Sambrook *et al.*, *supra*) and the protein A secretory signal (Pharmacia Biotech; Piscataway, New Jersey).

In yet another embodiment, the fusion protein is an immunoglobulin fusion protein in which all or part of a polypeptide corresponding to a marker of the invention is fused to sequences derived from a member of the immunoglobulin protein family. The immunoglobulin fusion proteins of the invention can be incorporated into pharmaceutical compositions and administered to a subject to inhibit an interaction between a ligand (soluble or membrane-bound) and a protein on the surface of a cell (receptor), to thereby suppress signal transduction *in vivo*. The immunoglobulin fusion protein can be used to affect the bioavailability of a cognate ligand of a polypeptide of the invention. Inhibition of ligand/receptor interaction can be useful therapeutically, both for treating proliferative and differentiative disorders and for modulating (*e.g.* promoting or inhibiting) cell survival. Moreover, the immunoglobulin fusion proteins of the invention can be used as immunogens to produce antibodies directed against a polypeptide of the invention in a subject, to purify ligands and in screening assays to identify molecules which inhibit the interaction of receptors with ligands.

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Chimeric and fusion proteins of the invention can be produced by standard recombinant DNA techniques. In another embodiment, the fusion gene can be synthesized by conventional techniques including automated DNA synthesizers. Alternatively, PCR amplification of gene fragments can be carried out using anchor
5 primers which give rise to complementary overhangs between two consecutive gene fragments which can subsequently be annealed and re-amplified to generate a chimeric gene sequence (see, *e.g.*, Ausubel *et al.*, *supra*). Moreover, many expression vectors are commercially available that already encode a fusion moiety (*e.g.*, a GST polypeptide). A nucleic acid encoding a polypeptide of the invention can be cloned into such an
10 expression vector such that the fusion moiety is linked in-frame to the polypeptide of the invention.

A signal sequence can be used to facilitate secretion and isolation of the secreted protein or other proteins of interest. Signal sequences are typically characterized by a core of hydrophobic amino acids which are generally cleaved from the mature protein
15 during secretion in one or more cleavage events. Such signal peptides contain processing sites that allow cleavage of the signal sequence from the mature proteins as they pass through the secretory pathway. Thus, the invention pertains to the described polypeptides having a signal sequence, as well as to polypeptides from which the signal sequence has been proteolytically cleaved (*i.e.*, the cleavage products). In one
20 embodiment, a nucleic acid sequence encoding a signal sequence can be operably linked in an expression vector to a protein of interest, such as a protein which is ordinarily not secreted or is otherwise difficult to isolate. The signal sequence directs secretion of the protein, such as from a eukaryotic host into which the expression vector is transformed, and the signal sequence is subsequently or concurrently cleaved. The protein can then
25 be readily purified from the extracellular medium by art recognized methods. Alternatively, the signal sequence can be linked to the protein of interest using a sequence which facilitates purification, such as with a GST domain.

The present invention also pertains to variants of the polypeptides corresponding to individual markers of the invention. Such variants have an altered amino acid
30 sequence which can function as either agonists (mimetics) or as antagonists. Variants can be generated by mutagenesis, *e.g.*, discrete point mutation or truncation. An agonist can retain substantially the same, or a subset, of the biological activities of the naturally

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occurring form of the protein. An antagonist of a protein can inhibit one or more of the activities of the naturally occurring form of the protein by, for example, competitively binding to a downstream or upstream member of a cellular signaling cascade which includes the protein of interest. Thus, specific biological effects can be elicited by treatment with a variant of limited function. Treatment of a subject with a variant having a subset of the biological activities of the naturally occurring form of the protein can have fewer side effects in a subject relative to treatment with the naturally occurring form of the protein.

Variants of a protein of the invention which function as either agonists (mimetics) or as antagonists can be identified by screening combinatorial libraries of mutants, *e.g.*, truncation mutants, of the protein of the invention for agonist or antagonist activity. In one embodiment, a variegated library of variants is generated by combinatorial mutagenesis at the nucleic acid level and is encoded by a variegated gene library. A variegated library of variants can be produced by, for example, enzymatically ligating a mixture of synthetic oligonucleotides into gene sequences such that a degenerate set of potential protein sequences is expressible as individual polypeptides, or alternatively, as a set of larger fusion proteins (*e.g.*, for phage display). There are a variety of methods which can be used to produce libraries of potential variants of the polypeptides of the invention from a degenerate oligonucleotide sequence. Methods for synthesizing degenerate oligonucleotides are known in the art (see, *e.g.*, Narang, 1983, *Tetrahedron* 39:3; Itakura *et al.*, 1984, *Annu. Rev. Biochem.* 53:323; Itakura *et al.*, 1984, *Science* 198:1056; Ike *et al.*, 1983 *Nucleic Acid Res.* 11:477).

In addition, libraries of fragments of the coding sequence of a polypeptide corresponding to a marker of the invention can be used to generate a variegated population of polypeptides for screening and subsequent selection of variants. For example, a library of coding sequence fragments can be generated by treating a double stranded PCR fragment of the coding sequence of interest with a nuclease under conditions wherein nicking occurs only about once per molecule, denaturing the double stranded DNA, renaturing the DNA to form double stranded DNA which can include sense/antisense pairs from different nicked products, removing single stranded portions from reformed duplexes by treatment with S1 nuclease, and ligating the resulting fragment library into an expression vector. By this method, an expression library can be

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derived which encodes amino terminal and internal fragments of various sizes of the protein of interest.

Several techniques are known in the art for screening gene products of combinatorial libraries made by point mutations or truncation, and for screening cDNA
5 libraries for gene products having a selected property. The most widely used techniques, which are amenable to high through-put analysis, for screening large gene libraries typically include cloning the gene library into replicable expression vectors, transforming appropriate cells with the resulting library of vectors, and expressing the combinatorial genes under conditions in which detection of a desired activity facilitates
10 isolation of the vector encoding the gene whose product was detected. Recursive ensemble mutagenesis (REM), a technique which enhances the frequency of functional mutants in the libraries, can be used in combination with the screening assays to identify variants of a protein of the invention (Arkin and Yourvan, 1992, *Proc. Natl. Acad. Sci. USA* 89:7811-7815; Delgrave *et al.*, 1993, *Protein Engineering* 6(3):327- 331).

15 An isolated polypeptide corresponding to a marker of the invention, or a fragment thereof, can be used as an immunogen to generate antibodies using standard techniques for polyclonal and monoclonal antibody preparation. The full-length polypeptide or protein can be used or, alternatively, the invention provides antigenic peptide fragments for use as immunogens. The antigenic peptide of a protein of the
20 invention comprises at least 8 (preferably 10, 15, 20, or 30 or more) amino acid residues of the amino acid sequence of one of the polypeptides of the invention, and encompasses an epitope of the protein such that an antibody raised against the peptide forms a specific immune complex with a marker of the invention to which the protein corresponds. Preferred epitopes encompassed by the antigenic peptide are regions that are located on
25 the surface of the protein, *e.g.*, hydrophilic regions. Hydrophobicity sequence analysis, hydrophilicity sequence analysis, or similar analyses can be used to identify hydrophilic regions.

An immunogen typically is used to prepare antibodies by immunizing a suitable (*i.e.* immunocompetent) subject such as a rabbit, goat, mouse, or other mammal or
30 vertebrate. An appropriate immunogenic preparation can contain, for example, recombinantly-expressed or chemically-synthesized polypeptide. The preparation can

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further include an adjuvant, such as Freund's complete or incomplete adjuvant, or a similar immunostimulatory agent.

Accordingly, another aspect of the invention pertains to antibodies directed against a polypeptide of the invention. The terms "antibody" and "antibody substance" as used interchangeably herein refer to immunoglobulin molecules and immunologically active portions of immunoglobulin molecules, *i.e.*, molecules that contain an antigen binding site which specifically binds an antigen, such as a polypeptide of the invention, *e.g.*, an epitope of a polypeptide of the invention. A molecule which specifically binds to a given polypeptide of the invention is a molecule which binds the polypeptide, but does not substantially bind other molecules in a sample, *e.g.*, a biological sample, which naturally contains the polypeptide. Examples of immunologically active portions of immunoglobulin molecules include F(ab) and F(ab')₂ fragments which can be generated by treating the antibody with an enzyme such as pepsin. The invention provides polyclonal and monoclonal antibodies. The term "monoclonal antibody" or "monoclonal antibody composition", as used herein, refers to a population of antibody molecules that contain only one species of an antigen binding site capable of immunoreacting with a particular epitope.

Polyclonal antibodies can be prepared as described above by immunizing a suitable subject with a polypeptide of the invention as an immunogen. Preferred polyclonal antibody compositions are ones that have been selected for antibodies directed against a polypeptide or polypeptides of the invention. Particularly preferred polyclonal antibody preparations are ones that contain only antibodies directed against a polypeptide or polypeptides of the invention. Particularly preferred immunogen compositions are those that contain no other human proteins such as, for example, immunogen compositions made using a non-human host cell for recombinant expression of a polypeptide of the invention. In such a manner, the only human epitope or epitopes recognized by the resulting antibody compositions raised against this immunogen will be present as part of a polypeptide or polypeptides of the invention.

The antibody titer in the immunized subject can be monitored over time by standard techniques, such as with an enzyme linked immunosorbent assay (ELISA) using immobilized polypeptide. If desired, the antibody molecules can be harvested or isolated from the subject (*e.g.*, from the blood or serum of the subject) and further

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purified by well-known techniques, such as protein A chromatography to obtain the IgG fraction. Alternatively, antibodies specific for a protein or polypeptide of the invention can be selected or (*e.g.*, partially purified) or purified by, *e.g.*, affinity chromatography. For example, a recombinantly expressed and purified (or partially purified) protein of the invention is produced as described herein, and covalently or non-covalently coupled to a solid support such as, for example, a chromatography column. The column can then be used to affinity purify antibodies specific for the proteins of the invention from a sample containing antibodies directed against a large number of different epitopes, thereby generating a substantially purified antibody composition, *i.e.*, one that is substantially free of contaminating antibodies. By a substantially purified antibody composition is meant, in this context, that the antibody sample contains at most only 30% (by dry weight) of contaminating antibodies directed against epitopes other than those of the desired protein or polypeptide of the invention, and preferably at most 20%, yet more preferably at most 10%, and most preferably at most 5% (by dry weight) of the sample is contaminating antibodies. A purified antibody composition means that at least 99% of the antibodies in the composition are directed against the desired protein or polypeptide of the invention.

At an appropriate time after immunization, *e.g.*, when the specific antibody titers are highest, antibody-producing cells can be obtained from the subject and used to prepare monoclonal antibodies by standard techniques, such as the hybridoma technique originally described by Kohler and Milstein (1975) *Nature* 256:495-497, the human B cell hybridoma technique (see Kozbor *et al.*, 1983, *Immunol. Today* 4:72), the EBV-hybridoma technique (see Cole *et al.*, pp. 77-96 In *Monoclonal Antibodies and Cancer Therapy*, Alan R. Liss, Inc., 1985) or trioma techniques. The technology for producing hybridomas is well known (see generally *Current Protocols in Immunology*, Coligan *et al.* ed., John Wiley & Sons, New York, 1994). Hybridoma cells producing a monoclonal antibody of the invention are detected by screening the hybridoma culture supernatants for antibodies that bind the polypeptide of interest, *e.g.*, using a standard ELISA assay.

Alternative to preparing monoclonal antibody-secreting hybridomas, a monoclonal antibody directed against a polypeptide of the invention can be identified and isolated by screening a recombinant combinatorial immunoglobulin library (*e.g.*, an

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antibody phage display library) with the polypeptide of interest. Kits for generating and screening phage display libraries are commercially available (e.g., the Pharmacia *Recombinant Phage Antibody System*, Catalog No. 27-9400-01; and the Stratagene *SurfZAP Phage Display Kit*, Catalog No. 240612). Additionally, examples of methods and reagents particularly amenable for use in generating and screening antibody display library can be found in, for example, U.S. Patent No. 5,223,409; PCT Publication No. WO 92/18619; PCT Publication No. WO 91/17271; PCT Publication No. WO 92/20791; PCT Publication No. WO 92/15679; PCT Publication No. WO 93/01288; PCT Publication No. WO 92/01047; PCT Publication No. WO 92/09690; PCT Publication No. WO 90/02809; Fuchs *et al.* (1991) *Bio/Technology* 9:1370-1372; Hay *et al.* (1992) *Hum. Antibod. Hybridomas* 3:81-85; Huse *et al.* (1989) *Science* 246:1275-1281; Griffiths *et al.* (1993) *EMBO J.* 12:725-734.

Additionally, recombinant antibodies, such as chimeric and humanized monoclonal antibodies, comprising both human and non-human portions, which can be made using standard recombinant DNA techniques, are within the scope of the invention. A chimeric antibody is a molecule in which different portions are derived from different animal species, such as those having a variable region derived from a murine mAb and a human immunoglobulin constant region. (See, e.g., Cabilly *et al.*, U.S. Patent No. 4,816,567; and Boss *et al.*, U.S. Patent No. 4,816,397, which are incorporated herein by reference in their entirety.) Humanized antibodies are antibody molecules from non-human species having one or more complementarily determining regions (CDRs) from the non-human species and a framework region from a human immunoglobulin molecule. (See, e.g., Queen, U.S. Patent No. 5,585,089, which is incorporated herein by reference in its entirety.) Such chimeric and humanized monoclonal antibodies can be produced by recombinant DNA techniques known in the art, for example using methods described in PCT Publication No. WO 87/02671; European Patent Application 184,187; European Patent Application 171,496; European Patent Application 173,494; PCT Publication No. WO 86/01533; U.S. Patent No. 4,816,567; European Patent Application 125,023; Better *et al.* (1988) *Science* 240:1041-1043; Liu *et al.* (1987) *Proc. Natl. Acad. Sci. USA* 84:3439-3443; Liu *et al.* (1987) *J. Immunol.* 139:3521-3526; Sun *et al.* (1987) *Proc. Natl. Acad. Sci. USA* 84:214-218; Nishimura *et al.* (1987) *Cancer Res.* 47:999-1005; Wood *et al.* (1985) *Nature* 314:446-

449; and Shaw *et al.* (1988) *J. Natl. Cancer Inst.* 80:1553-1559); Morrison (1985) *Science* 229:1202-1207; Oi *et al.* (1986) *Bio/Techniques* 4:214; U.S. Patent 5,225,539; Jones *et al.* (1986) *Nature* 321:552-525; Verhoeyan *et al.* (1988) *Science* 239:1534; and Beidler *et al.* (1988) *J. Immunol.* 141:4053-4060.

5 Antibodies of the invention may be used as therapeutic agents in treating cancers. In a preferred embodiment, completely human antibodies of the invention are used for therapeutic treatment of human cancer patients, particularly those having an ovarian cancer. Such antibodies can be produced, for example, using transgenic mice which are incapable of expressing endogenous immunoglobulin heavy and light chains
10 genes, but which can express human heavy and light chain genes. The transgenic mice are immunized in the normal fashion with a selected antigen, *e.g.*, all or a portion of a polypeptide corresponding to a marker of the invention. Monoclonal antibodies directed against the antigen can be obtained using conventional hybridoma technology. The human immunoglobulin transgenes harbored by the transgenic mice rearrange during B
15 cell differentiation, and subsequently undergo class switching and somatic mutation. Thus, using such a technique, it is possible to produce therapeutically useful IgG, IgA and IgE antibodies. For an overview of this technology for producing human antibodies, see Lonberg and Huszar (1995) *Int. Rev. Immunol.* 13:65-93). For a detailed discussion of this technology for producing human antibodies and human monoclonal antibodies
20 and protocols for producing such antibodies, see, *e.g.*, U.S. Patent 5,625,126; U.S. Patent 5,633,425; U.S. Patent 5,569,825; U.S. Patent 5,661,016; and U.S. Patent 5,545,806. In addition, companies such as Abgenix, Inc. (Freemont, CA), can be engaged to provide human antibodies directed against a selected antigen using technology similar to that described above.

25 Completely human antibodies which recognize a selected epitope can be generated using a technique referred to as "guided selection." In this approach a selected non-human monoclonal antibody, *e.g.*, a murine antibody, is used to guide the selection of a completely human antibody recognizing the same epitope (Jespers *et al.*, 1994, *Bio/technology* 12:899-903).

30 An antibody directed against a polypeptide corresponding to a marker of the invention (*e.g.*, a monoclonal antibody) can be used to isolate the polypeptide by standard techniques, such as affinity chromatography or immunoprecipitation.

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Moreover, such an antibody can be used to detect the marker (*e.g.*, in a cellular lysate or cell supernatant) in order to evaluate the level and pattern of expression of the marker.

The antibodies can also be used diagnostically to monitor protein levels in tissues or body fluids (*e.g.* in an ovary-associated body fluid) as part of a clinical testing

5 procedure, *e.g.*, to, for example, determine the efficacy of a given treatment regimen.

Detection can be facilitated by coupling the antibody to a detectable substance.

Examples of detectable substances include various enzymes, prosthetic groups, fluorescent materials, luminescent materials, bioluminescent materials, and radioactive materials. Examples of suitable enzymes include horseradish peroxidase, alkaline

10 phosphatase, β -galactosidase, or acetylcholinesterase; examples of suitable prosthetic group complexes include streptavidin/biotin and avidin/biotin; examples of suitable fluorescent materials include umbelliferone, fluorescein, fluorescein isothiocyanate, rhodamine, dichlorotriazinylamine fluorescein, dansyl chloride or phycoerythrin; an example of a luminescent material includes luminol; examples of bioluminescent

15 materials include luciferase, luciferin, and aequorin, and examples of suitable radioactive material include ^{125}I , ^{131}I , ^{35}S or ^3H .

Further, an antibody (or fragment thereof) can be conjugated to a therapeutic moiety such as a cytotoxin, a therapeutic agent or a radioactive metal ion. A cytotoxin or cytotoxic agent includes any agent that is detrimental to cells. Examples include

20 taxol, cytochalasin B, gramicidin D, ethidium bromide, emetine, mitomycin, etoposide, teniposide, vincristine, vinblastine, colchicin, doxorubicin, daunorubicin, dihydroxy anthracin dione, mitoxantrone, mithramycin, actinomycin D, 1-dehydrotestosterone, glucocorticoids, procaine, tetracaine, lidocaine, propranolol, and puromycin and analogs or homologs thereof. Therapeutic agents include, but are not limited to, antimetabolites

25 (*e.g.*, methotrexate, 6-mercaptopurine, 6-thioguanine, cytarabine, 5-fluorouracil decarbazine), alkylating agents (*e.g.*, mechlorethamine, thioepa chlorambucil, melphalan, carmustine (BSNU) and lomustine (CCNU), cyclophosphamide, busulfan, dibromomannitol, streptozotocin, mitomycin C, and cis-dichlorodiamine platinum (II) (DDP) cisplatin), anthracyclines (*e.g.*, daunorubicin (formerly daunomycin) and

30 doxorubicin), antibiotics (*e.g.*, dactinomycin (formerly actinomycin), bleomycin, mithramycin, and anthramycin (AMC)), and anti-mitotic agents (*e.g.*, vincristine and vinblastine).

The conjugates of the invention can be used for modifying a given biological response, the drug moiety is not to be construed as limited to classical chemical therapeutic agents. For example, the drug moiety may be a protein or polypeptide possessing a desired biological activity. Such proteins may include, for example, a toxin
5 such as abrin, ricin A, pseudomonas exotoxin, or diphtheria toxin; a protein such as tumor necrosis factor, .alpha.-interferon, .beta.-interferon, nerve growth factor, platelet derived growth factor, tissue plasminogen activator; or, biological response modifiers such as, for example, lymphokines, interleukin-1 ("IL-1"), interleukin-2 ("IL-2"), interleukin-6 ("IL-6"), granulocyte macrophase colony stimulating factor ("GM-CSF"),
10 granulocyte colony stimulating factor ("G-CSF"), or other growth factors.

Techniques for conjugating such therapeutic moiety to antibodies are well known, see, *e.g.*, Arnon et al., "Monoclonal Antibodies For Immunotargeting Of Drugs In Cancer Therapy", in *Monoclonal Antibodies And Cancer Therapy*, Reisfeld et al. (eds.), pp. 243-56 (Alan R. Liss, Inc. 1985); Hellstrom et al., "Antibodies For Drug
15 Delivery", in *Controlled Drug Delivery* (2nd Ed.), Robinson et al. (eds.), pp. 623-53 (Marcel Dekker, Inc. 1987); Thorpe, "Antibody Carriers Of Cytotoxic Agents In Cancer Therapy: A Review", in *Monoclonal Antibodies '84: Biological And Clinical Applications*, Pinchera et al. (eds.), pp. 475-506 (1985); "Analysis, Results, And Future Prospective Of The Therapeutic Use Of Radiolabeled Antibody In Cancer Therapy", in
20 *Monoclonal Antibodies For Cancer Detection And Therapy*, Baldwin et al. (eds.), pp. 303-16 (Academic Press 1985), and Thorpe et al., "The Preparation And Cytotoxic Properties Of Antibody-Toxin Conjugates", *Immunol. Rev.*, 62:119-58 (1982).

Alternatively, an antibody can be conjugated to a second antibody to form an antibody heteroconjugate as described by Segal in U.S. Patent No. 4,676,980.

25 Accordingly, in one aspect, the invention provides substantially purified antibodies or fragments thereof, and non-human antibodies or fragments thereof, which antibodies or fragments specifically bind to a polypeptide comprising an amino acid sequence selected from the group consisting of the amino acid sequences of the present invention, an amino acid sequence encoded by the cDNA of the present invention, a
30 fragment of at least 15 amino acid residues of an amino acid sequence of the present invention, an amino acid sequence which is at least 95% identical to the amino acid sequence of the present invention (wherein the percent identity is determined using the

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ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention, or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C. In various embodiments, the substantially purified antibodies of the invention, or fragments thereof, can be human, non-human, chimeric and/or humanized antibodies.

In another aspect, the invention provides non-human antibodies or fragments thereof, which antibodies or fragments specifically bind to a polypeptide comprising an amino acid sequence selected from the group consisting of: the amino acid sequence of the present invention, an amino acid sequence encoded by the cDNA of the present invention, a fragment of at least 15 amino acid residues of the amino acid sequence of the present invention, an amino acid sequence which is at least 95% identical to the amino acid sequence of the present invention (wherein the percent identity is determined using the ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention, or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C. Such non-human antibodies can be goat, mouse, sheep, horse, chicken, rabbit, or rat antibodies. Alternatively, the non-human antibodies of the invention can be chimeric and/or humanized antibodies. In addition, the non-human antibodies of the invention can be polyclonal antibodies or monoclonal antibodies.

In still a further aspect, the invention provides monoclonal antibodies or fragments thereof, which antibodies or fragments specifically bind to a polypeptide comprising an amino acid sequence selected from the group consisting of the amino acid sequences of the present invention, an amino acid sequence encoded by the cDNA of the present invention, a fragment of at least 15 amino acid residues of an amino acid sequence of the present invention, an amino acid sequence which is at least 95% identical to an amino acid sequence of the present invention (wherein the percent

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identity is determined using the ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention,
5 or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C. The monoclonal antibodies can be human, humanized, chimeric and/or non-human antibodies.

The substantially purified antibodies or fragments thereof may specifically bind to a signal peptide, a secreted sequence, an extracellular domain, a transmembrane or a
10 cytoplasmic domain or cytoplasmic membrane of a polypeptide of the invention. In a particularly preferred embodiment, the substantially purified antibodies or fragments thereof, the non-human antibodies or fragments thereof, and/or the monoclonal antibodies or fragments thereof, of the invention specifically bind to a secreted sequence or an extracellular domain of the amino acid sequences of the present invention.

15 Any of the antibodies of the invention can be conjugated to a therapeutic moiety or to a detectable substance. Non-limiting examples of detectable substances that can be conjugated to the antibodies of the invention are an enzyme, a prosthetic group, a fluorescent material, a luminescent material, a bioluminescent material, and a radioactive material.

20 The invention also provides a kit containing an antibody of the invention conjugated to a detectable substance, and instructions for use. Still another aspect of the invention is a pharmaceutical composition comprising an antibody of the invention and a pharmaceutically acceptable carrier. In preferred embodiments, the pharmaceutical composition contains an antibody of the invention, a therapeutic moiety, and a
25 pharmaceutically acceptable carrier.

Still another aspect of the invention is a method of making an antibody that specifically recognizes a polypeptide of the present invention, the method comprising immunizing a mammal with a polypeptide. The polypeptide used as an immungen comprises an amino acid sequence selected from the group consisting of the amino acid
30 sequence of the present invention, an amino acid sequence encoded by the cDNA of the nucleic acid molecules of the present invention, a fragment of at least 15 amino acid residues of the amino acid sequence of the present invention, an amino acid sequence

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which is at least 95% identical to the amino acid sequence of the present invention (wherein the percent identity is determined using the ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid

5 molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention, or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C.

After immunization, a sample is collected from the mammal that contains an antibody that specifically recognizes the polypeptide. Preferably, the polypeptide is
10 recombinantly produced using a non-human host cell. Optionally, the antibodies can be further purified from the sample using techniques well known to those of skill in the art. The method can further comprise producing a monoclonal antibody-producing cell from the cells of the mammal. Optionally, antibodies are collected from the antibody-producing cell.

15

III. Recombinant Expression Vectors and Host Cells

Another aspect of the invention pertains to vectors, preferably expression vectors, containing a nucleic acid encoding a polypeptide corresponding to a marker of the invention (or a portion of such a polypeptide). As used herein, the term "vector"
20 refers to a nucleic acid molecule capable of transporting another nucleic acid to which it has been linked. One type of vector is a "plasmid", which refers to a circular double stranded DNA loop into which additional DNA segments can be ligated. Another type of vector is a viral vector, wherein additional DNA segments can be ligated into the viral genome. Certain vectors are capable of autonomous replication in a host cell into which they are introduced (*e.g.*, bacterial vectors having a bacterial origin of replication and episomal mammalian vectors). Other vectors (*e.g.*, non-episomal mammalian vectors) are integrated into the genome of a host cell upon introduction into the host cell, and thereby are replicated along with the host genome. Moreover, certain vectors, namely expression vectors, are capable of directing the expression of genes to which they are
25 operably linked. In general, expression vectors of utility in recombinant DNA techniques are often in the form of plasmids (vectors). However, the invention is intended to include such other forms of expression vectors, such as viral vectors (*e.g.*,

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replication defective retroviruses, adenoviruses and adeno-associated viruses), which serve equivalent functions.

The recombinant expression vectors of the invention comprise a nucleic acid of the invention in a form suitable for expression of the nucleic acid in a host cell. This
5 means that the recombinant expression vectors include one or more regulatory sequences, selected on the basis of the host cells to be used for expression, which is operably linked to the nucleic acid sequence to be expressed. Within a recombinant expression vector, "operably linked" is intended to mean that the nucleotide sequence of interest is linked to the regulatory sequence(s) in a manner which allows for expression
10 of the nucleotide sequence (*e.g.*, in an *in vitro* transcription/translation system or in a host cell when the vector is introduced into the host cell). The term "regulatory sequence" is intended to include promoters, enhancers and other expression control elements (*e.g.*, polyadenylation signals). Such regulatory sequences are described, for example, in Goeddel, *Methods in Enzymology: Gene Expression Technology* vol.185,
15 Academic Press, San Diego, CA (1991). Regulatory sequences include those which direct constitutive expression of a nucleotide sequence in many types of host cell and those which direct expression of the nucleotide sequence only in certain host cells (*e.g.*, tissue-specific regulatory sequences). It will be appreciated by those skilled in the art that the design of the expression vector can depend on such factors as the choice of the
20 host cell to be transformed, the level of expression of protein desired, and the like. The expression vectors of the invention can be introduced into host cells to thereby produce proteins or peptides, including fusion proteins or peptides, encoded by nucleic acids as described herein.

The recombinant expression vectors of the invention can be designed for
25 expression of a polypeptide corresponding to a marker of the invention in prokaryotic (*e.g.*, *E. coli*) or eukaryotic cells (*e.g.*, insect cells {using baculovirus expression vectors}, yeast cells or mammalian cells). Suitable host cells are discussed further in Goeddel, *supra*. Alternatively, the recombinant expression vector can be transcribed and translated *in vitro*, for example using T7 promoter regulatory sequences and T7
30 polymerase.

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Expression of proteins in prokaryotes is most often carried out in *E. coli* with vectors containing constitutive or inducible promoters directing the expression of either fusion or non-fusion proteins. Fusion vectors add a number of amino acids to a protein encoded therein, usually to the amino terminus of the recombinant protein. Such fusion
5 vectors typically serve three purposes: 1) to increase expression of recombinant protein; 2) to increase the solubility of the recombinant protein; and 3) to aid in the purification of the recombinant protein by acting as a ligand in affinity purification. Often, in fusion expression vectors, a proteolytic cleavage site is introduced at the junction of the fusion moiety and the recombinant protein to enable separation of the recombinant protein
10 from the fusion moiety subsequent to purification of the fusion protein. Such enzymes, and their cognate recognition sequences, include Factor Xa, thrombin and enterokinase. Typical fusion expression vectors include pGEX (Pharmacia Biotech Inc; Smith and Johnson, 1988, *Gene* 67:31-40), pMAL (New England Biolabs, Beverly, MA) and pRIT5 (Pharmacia, Piscataway, NJ) which fuse glutathione S-transferase (GST),
15 maltose E binding protein, or protein A, respectively, to the target recombinant protein.

Examples of suitable inducible non-fusion *E. coli* expression vectors include pTrc (Amann *et al.*, 1988, *Gene* 69:301-315) and pET 11d (Studier *et al.*, p. 60-89, In
Gene Expression Technology: Methods in Enzymology vol.185, Academic Press, San Diego, CA, 1991). Target gene expression from the pTrc vector relies on host RNA
20 polymerase transcription from a hybrid trp-lac fusion promoter. Target gene expression from the pET 11d vector relies on transcription from a T7 gn10-lac fusion promoter mediated by a co-expressed viral RNA polymerase (T7 gn1). This viral polymerase is supplied by host strains BL21(DE3) or HMS174(DE3) from a resident prophage harboring a T7 gn1 gene under the transcriptional control of the lacUV 5 promoter.

25 One strategy to maximize recombinant protein expression in *E. coli* is to express the protein in a host bacteria with an impaired capacity to proteolytically cleave the recombinant protein (Gottesman, p. 119-128, In *Gene Expression Technology: Methods in Enzymology* vol. 185, Academic Press, San Diego, CA, 1990. Another strategy is to alter the nucleic acid sequence of the nucleic acid to be inserted into an expression
30 vector so that the individual codons for each amino acid are those preferentially utilized in *E. coli* (Wada *et al.*, 1992, *Nucleic Acids Res.* 20:2111-2118). Such alteration of

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nucleic acid sequences of the invention can be carried out by standard DNA synthesis techniques.

In another embodiment, the expression vector is a yeast expression vector. Examples of vectors for expression in yeast *S. cerevisiae* include pYepSec1 (Baldari *et al.*, 1987, *EMBO J.* 6:229-234), pMFa (Kurjan and Herskowitz, 1982, *Cell* 30:933-943), pJRY88 (Schultz *et al.*, 1987, *Gene* 54:113-123), pYES2 (Invitrogen Corporation, San Diego, CA), and pPicZ (Invitrogen Corp, San Diego, CA).

Alternatively, the expression vector is a baculovirus expression vector. Baculovirus vectors available for expression of proteins in cultured insect cells (*e.g.*, Sf 9 cells) include the pAc series (Smith *et al.*, 1983, *Mol. Cell Biol.* 3:2156-2165) and the pVL series (Lucklow and Summers, 1989, *Virology* 170:31-39).

In yet another embodiment, a nucleic acid of the invention is expressed in mammalian cells using a mammalian expression vector. Examples of mammalian expression vectors include pCDM8 (Seed, 1987, *Nature* 329:840) and pMT2PC (Kaufman *et al.*, 1987, *EMBO J.* 6:187-195). When used in mammalian cells, the expression vector's control functions are often provided by viral regulatory elements. For example, commonly used promoters are derived from polyoma, Adenovirus 2, cytomegalovirus and Simian Virus 40. For other suitable expression systems for both prokaryotic and eukaryotic cells see chapters 16 and 17 of Sambrook *et al.*, *supra*.

In another embodiment, the recombinant mammalian expression vector is capable of directing expression of the nucleic acid preferentially in a particular cell type (*e.g.*, tissue-specific regulatory elements are used to express the nucleic acid). Tissue-specific regulatory elements are known in the art. Non-limiting examples of suitable tissue-specific promoters include the albumin promoter (liver-specific; Pinkert *et al.*, 1987, *Genes Dev.* 1:268-277), lymphoid-specific promoters (Calame and Eaton, 1988, *Adv. Immunol.* 43:235-275), in particular promoters of T cell receptors (Winoto and Baltimore, 1989, *EMBO J.* 8:729-733) and immunoglobulins (Banerji *et al.*, 1983, *Cell* 33:729-740; Queen and Baltimore, 1983, *Cell* 33:741-748), neuron-specific promoters (*e.g.*, the neurofilament promoter; Byrne and Ruddle, 1989, *Proc. Natl. Acad. Sci. USA* 86:5473-5477), pancreas-specific promoters (Edlund *et al.*, 1985, *Science* 230:912-916), and mammary gland-specific promoters (*e.g.*, milk whey promoter; U.S. Patent No. 4,873,316 and European Application Publication No. 264,166). Developmentally-

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regulated promoters are also encompassed, for example the murine hox promoters (Kessel and Gruss, 1990, *Science* 249:374-379) and the α -fetoprotein promoter (Camper and Tilghman, 1989, *Genes Dev.* 3:537-546).

The invention further provides a recombinant expression vector comprising a DNA molecule of the invention cloned into the expression vector in an antisense orientation. That is, the DNA molecule is operably linked to a regulatory sequence in a manner which allows for expression (by transcription of the DNA molecule) of an RNA molecule which is antisense to the mRNA encoding a polypeptide of the invention. Regulatory sequences operably linked to a nucleic acid cloned in the antisense orientation can be chosen which direct the continuous expression of the antisense RNA molecule in a variety of cell types, for instance viral promoters and/or enhancers, or regulatory sequences can be chosen which direct constitutive, tissue-specific or cell type specific expression of antisense RNA. The antisense expression vector can be in the form of a recombinant plasmid, phagemid, or attenuated virus in which antisense nucleic acids are produced under the control of a high efficiency regulatory region, the activity of which can be determined by the cell type into which the vector is introduced. For a discussion of the regulation of gene expression using antisense genes see Weintraub *et al.*, 1986, *Trends in Genetics*, Vol. 1(1).

Another aspect of the invention pertains to host cells into which a recombinant expression vector of the invention has been introduced. The terms "host cell" and "recombinant host cell" are used interchangeably herein. It is understood that such terms refer not only to the particular subject cell but to the progeny or potential progeny of such a cell. Because certain modifications may occur in succeeding generations due to either mutation or environmental influences, such progeny may not, in fact, be identical to the parent cell, but are still included within the scope of the term as used herein.

A host cell can be any prokaryotic (*e.g.*, *E. coli*) or eukaryotic cell (*e.g.*, insect cells, yeast or mammalian cells).

Vector DNA can be introduced into prokaryotic or eukaryotic cells via conventional transformation or transfection techniques. As used herein, the terms "transformation" and "transfection" are intended to refer to a variety of art-recognized techniques for introducing foreign nucleic acid into a host cell, including calcium

phosphate or calcium chloride co-precipitation, DEAE-dextran-mediated transfection, lipofection, or electroporation. Suitable methods for transforming or transfecting host cells can be found in Sambrook, *et al. (supra)*, and other laboratory manuals.

For stable transfection of mammalian cells, it is known that, depending upon the
5 expression vector and transfection technique used, only a small fraction of cells may integrate the foreign DNA into their genome. In order to identify and select these integrants, a gene that encodes a selectable marker (*e.g.*, for resistance to antibiotics) is generally introduced into the host cells along with the gene of interest. Preferred selectable markers include those which confer resistance to drugs, such as G418,
10 hygromycin and methotrexate. Cells stably transfected with the introduced nucleic acid can be identified by drug selection (*e.g.*, cells that have incorporated the selectable marker gene will survive, while the other cells die).

A host cell of the invention, such as a prokaryotic or eukaryotic host cell in culture, can be used to produce a polypeptide corresponding to a marker of the
15 invention. Accordingly, the invention further provides methods for producing a polypeptide corresponding to a marker of the invention using the host cells of the invention. In one embodiment, the method comprises culturing the host cell of invention (into which a recombinant expression vector encoding a polypeptide of the invention has been introduced) in a suitable medium such that the marker is produced.
20 In another embodiment, the method further comprises isolating the marker polypeptide from the medium or the host cell.

The host cells of the invention can also be used to produce nonhuman transgenic animals. For example, in one embodiment, a host cell of the invention is a fertilized oocyte or an embryonic stem cell into which a sequences encoding a polypeptide
25 corresponding to a marker of the invention have been introduced. Such host cells can then be used to create non-human transgenic animals in which exogenous sequences encoding a marker protein of the invention have been introduced into their genome or homologous recombinant animals in which endogenous gene(s) encoding a polypeptide corresponding to a marker of the invention sequences have been altered. Such animals
30 are useful for studying the function and/or activity of the polypeptide corresponding to the marker and for identifying and/or evaluating modulators of polypeptide activity. As used herein, a "transgenic animal" is a non-human animal, preferably a mammal, more

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preferably a rodent such as a rat or mouse, in which one or more of the cells of the animal includes a transgene. Other examples of transgenic animals include non-human primates, sheep, dogs, cows, goats, chickens, amphibians, etc. A transgene is exogenous DNA which is integrated into the genome of a cell from which a transgenic animal
5 develops and which remains in the genome of the mature animal, thereby directing the expression of an encoded gene product in one or more cell types or tissues of the transgenic animal. As used herein, an "homologous recombinant animal" is a non-human animal, preferably a mammal, more preferably a mouse, in which an endogenous gene has been altered by homologous recombination between the endogenous gene and
10 an exogenous DNA molecule introduced into a cell of the animal, *e.g.*, an embryonic cell of the animal, prior to development of the animal.

A transgenic animal of the invention can be created by introducing a nucleic acid encoding a polypeptide corresponding to a marker of the invention into the male pronuclei of a fertilized oocyte, *e.g.*, by microinjection, retroviral infection, and allowing
15 the oocyte to develop in a pseudopregnant female foster animal. Intronic sequences and polyadenylation signals can also be included in the transgene to increase the efficiency of expression of the transgene. A tissue-specific regulatory sequence(s) can be operably linked to the transgene to direct expression of the polypeptide of the invention to particular cells. Methods for generating transgenic animals via embryo manipulation
20 and microinjection, particularly animals such as mice, have become conventional in the art and are described, for example, in U.S. Patent Nos. 4,736,866 and 4,870,009, U.S. Patent No. 4,873,191 and in Hogan, *Manipulating the Mouse Embryo*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y., 1986. Similar methods are used for production of other transgenic animals. A transgenic founder animal can be identified
25 based upon the presence of the transgene in its genome and/or expression of mRNA encoding the transgene in tissues or cells of the animals. A transgenic founder animal can then be used to breed additional animals carrying the transgene. Moreover, transgenic animals carrying the transgene can further be bred to other transgenic animals carrying other transgenes.

30 To create an homologous recombinant animal, a vector is prepared which contains at least a portion of a gene encoding a polypeptide corresponding to a marker of the invention into which a deletion, addition or substitution has been introduced to

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thereby alter, *e.g.*, functionally disrupt, the gene. In a preferred embodiment, the vector is designed such that, upon homologous recombination, the endogenous gene is functionally disrupted (*i.e.*, no longer encodes a functional protein; also referred to as a "knock out" vector). Alternatively, the vector can be designed such that, upon

5 homologous recombination, the endogenous gene is mutated or otherwise altered but still encodes functional protein (*e.g.*, the upstream regulatory region can be altered to thereby alter the expression of the endogenous protein). In the homologous recombination vector, the altered portion of the gene is flanked at its 5' and 3' ends by additional nucleic acid of the gene to allow for homologous recombination to occur

10 between the exogenous gene carried by the vector and an endogenous gene in an embryonic stem cell. The additional flanking nucleic acid sequences are of sufficient length for successful homologous recombination with the endogenous gene. Typically, several kilobases of flanking DNA (both at the 5' and 3' ends) are included in the vector (see, *e.g.*, Thomas and Capecchi, 1987, *Cell* 51:503 for a description of homologous

15 recombination vectors). The vector is introduced into an embryonic stem cell line (*e.g.*, by electroporation) and cells in which the introduced gene has homologously recombined with the endogenous gene are selected (see, *e.g.*, Li *et al.*, 1992, *Cell* 69:915). The selected cells are then injected into a blastocyst of an animal (*e.g.*, a mouse) to form aggregation chimeras (see, *e.g.*, Bradley, *Teratocarcinomas and*

20 *Embryonic Stem Cells: A Practical Approach*, Robertson, Ed., IRL, Oxford, 1987, pp. 113-152). A chimeric embryo can then be implanted into a suitable pseudopregnant female foster animal and the embryo brought to term. Progeny harboring the homologously recombined DNA in their germ cells can be used to breed animals in which all cells of the animal contain the homologously recombined DNA by germline

25 transmission of the transgene. Methods for constructing homologous recombination vectors and homologous recombinant animals are described further in Bradley (1991) *Current Opinion in Bio/Technology* 2:823-829 and in PCT Publication NOS. WO 90/11354, WO 91/01140, WO 92/0968, and WO 93/04169.

In another embodiment, transgenic non-human animals can be produced which

30 contain selected systems which allow for regulated expression of the transgene. One example of such a system is the *cre/loxP* recombinase system of bacteriophage P1. For a description of the *cre/loxP* recombinase system, see, *e.g.*, Lakso *et al.* (1992) *Proc.*

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Natl. Acad. Sci. USA 89:6232-6236. Another example of a recombinase system is the FLP recombinase system of *Saccharomyces cerevisiae* (O'Gorman *et al.*, 1991, *Science* 251:1351-1355). If a *cre/loxP* recombinase system is used to regulate expression of the transgene, animals containing transgenes encoding both the *Cre* recombinase and a
5 selected protein are required. Such animals can be provided through the construction of "double" transgenic animals, *e.g.*, by mating two transgenic animals, one containing a transgene encoding a selected protein and the other containing a transgene encoding a recombinase.

Clones of the non-human transgenic animals described herein can also be
10 produced according to the methods described in Wilmot *et al.* (1997) *Nature* 385:810-813 and PCT Publication NOS. WO 97/07668 and WO 97/07669.

IV. Pharmaceutical Compositions

The nucleic acid molecules, polypeptides, and antibodies (also referred to herein
15 as "active compounds") corresponding to a marker of the invention can be incorporated into pharmaceutical compositions suitable for administration. Such compositions typically comprise the nucleic acid molecule, protein, or antibody and a pharmaceutically acceptable carrier. As used herein the language "pharmaceutically acceptable carrier" is intended to include any and all solvents, dispersion media,
20 coatings, antibacterial and antifungal agents, isotonic and absorption delaying agents, and the like, compatible with pharmaceutical administration. The use of such media and agents for pharmaceutically active substances is well known in the art. Except insofar as any conventional media or agent is incompatible with the active compound, use thereof in the compositions is contemplated. Supplementary active compounds can also be
25 incorporated into the compositions.

The invention includes methods for preparing pharmaceutical compositions for modulating the expression or activity of a polypeptide or nucleic acid corresponding to a marker of the invention. Such methods comprise formulating a pharmaceutically acceptable carrier with an agent which modulates expression or activity of a polypeptide
30 or nucleic acid corresponding to a marker of the invention. Such compositions can further include additional active agents. Thus, the invention further includes methods for preparing a pharmaceutical composition by formulating a pharmaceutically

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acceptable carrier with an agent which modulates expression or activity of a polypeptide or nucleic acid corresponding to a marker of the invention and one or more additional active compounds.

The invention also provides methods (also referred to herein as "screening assays") for identifying modulators, *i.e.*, candidate or test compounds or agents (*e.g.*, peptides, peptidomimetics, peptoids, small molecules or other drugs) which (a) bind to the marker, or (b) have a modulatory (*e.g.*, stimulatory or inhibitory) effect on the activity of the marker or, more specifically, (c) have a modulatory effect on the interactions of the marker with one or more of its natural substrates (*e.g.*, peptide, protein, hormone, co-factor, or nucleic acid), or (d) have a modulatory effect on the expression of the marker. Such assays typically comprise a reaction between the marker and one or more assay components. The other components may be either the test compound itself, or a combination of test compound and a natural binding partner of the marker.

The test compounds of the present invention may be obtained from any available source, including systematic libraries of natural and/or synthetic compounds. Test compounds may also be obtained by any of the numerous approaches in combinatorial library methods known in the art, including: biological libraries; peptoid libraries (libraries of molecules having the functionalities of peptides, but with a novel, non-peptide backbone which are resistant to enzymatic degradation but which nevertheless remain bioactive; see, *e.g.*, Zuckermann *et al.*, 1994, *J. Med. Chem.* 37:2678-85); spatially addressable parallel solid phase or solution phase libraries; synthetic library methods requiring deconvolution; the 'one-bead one-compound' library method; and synthetic library methods using affinity chromatography selection. The biological library and peptoid library approaches are limited to peptide libraries, while the other four approaches are applicable to peptide, non-peptide oligomer or small molecule libraries of compounds (Lam, 1997, *Anticancer Drug Des.* 12:145).

Examples of methods for the synthesis of molecular libraries can be found in the art, for example in: DeWitt *et al.* (1993) *Proc. Natl. Acad. Sci. U.S.A.* 90:6909; Erb *et al.* (1994) *Proc. Natl. Acad. Sci. USA* 91:11422; Zuckermann *et al.* (1994). *J. Med. Chem.* 37:2678; Cho *et al.* (1993) *Science* 261:1303; Carrell *et al.* (1994) *Angew. Chem.*

Int. Ed. Engl. 33:2059; Carell *et al.* (1994) *Angew. Chem. Int. Ed. Engl.* 33:2061; and in Gallop *et al.* (1994) *J. Med. Chem.* 37:1233.

Libraries of compounds may be presented in solution (*e.g.*, Houghten, 1992, *Biotechniques* 13:412-421), or on beads (Lam, 1991, *Nature* 354:82-84), chips (Fodor, 5 1993, *Nature* 364:555-556), bacteria and/or spores, (Ladner, USP 5,223,409), plasmids (Cull *et al.*, 1992, *Proc Natl Acad Sci USA* 89:1865-1869) or on phage (Scott and Smith, 1990, *Science* 249:386-390; Devlin, 1990, *Science* 249:404-406; Cwirla *et al.*, 1990, *Proc. Natl. Acad. Sci.* 87:6378-6382; Felici, 1991, *J. Mol. Biol.* 222:301-310; Ladner, *supra.*).

10 In one embodiment, the invention provides assays for screening candidate or test compounds which are substrates of a marker or biologically active portion thereof. In another embodiment, the invention provides assays for screening candidate or test compounds which bind to a marker or biologically active portion thereof. Determining the ability of the test compound to directly bind to a marker can be accomplished, for 15 example, by coupling the compound with a radioisotope or enzymatic label such that binding of the compound to the marker can be determined by detecting the labeled marker compound in a complex. For example, compounds (*e.g.*, marker substrates) can be labeled with ^{125}I , ^{35}S , ^{14}C , or ^3H , either directly or indirectly, and the radioisotope detected by direct counting of radioemission or by scintillation counting. Alternatively, 20 assay components can be enzymatically labeled with, for example, horseradish peroxidase, alkaline phosphatase, or luciferase, and the enzymatic label detected by determination of conversion of an appropriate substrate to product.

In another embodiment, the invention provides assays for screening candidate or test compounds which modulate the activity of a marker or a biologically active portion 25 thereof. In all likelihood, the marker can, *in vivo*, interact with one or more molecules, such as but not limited to, peptides, proteins, hormones, cofactors and nucleic acids. For the purposes of this discussion, such cellular and extracellular molecules are referred to herein as "binding partners" or marker "substrate".

One necessary embodiment of the invention in order to facilitate such screening 30 is the use of the marker to identify its natural *in vivo* binding partners. There are many ways to accomplish this which are known to one skilled in the art. One example is the use of the marker protein as "bait protein" in a two-hybrid assay or three-hybrid assay

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(see, e.g., U.S. Patent No. 5,283,317; Zervos *et al*, 1993, *Cell* 72:223-232; Madura *et al*, 1993, *J. Biol. Chem.* 268:12046-12054; Bartel *et al*, 1993, *Biotechniques* 14:920-924; Iwabuchi *et al*, 1993 *Oncogene* 8:1693-1696; Brent WO94/10300) in order to identify other proteins which bind to or interact with the marker (binding partners) and, therefore, are possibly involved in the natural function of the marker. Such marker binding partners are also likely to be involved in the propagation of signals by the marker or downstream elements of a marker-mediated signaling pathway. Alternatively, such marker binding partners may also be found to be inhibitors of the marker.

The two-hybrid system is based on the modular nature of most transcription factors, which consist of separable DNA-binding and activation domains. Briefly, the assay utilizes two different DNA constructs. In one construct, the gene that encodes a marker protein fused to a gene encoding the DNA binding domain of a known transcription factor (e.g., GAL-4). In the other construct, a DNA sequence, from a library of DNA sequences, that encodes an unidentified protein ("prey" or "sample") is fused to a gene that codes for the activation domain of the known transcription factor. If the "bait" and the "prey" proteins are able to interact, *in vivo*, forming a marker-dependent complex, the DNA-binding and activation domains of the transcription factor are brought into close proximity. This proximity allows transcription of a reporter gene (e.g., LacZ) which is operably linked to a transcriptional regulatory site responsive to the transcription factor. Expression of the reporter gene can be readily detected and cell colonies containing the functional transcription factor can be isolated and used to obtain the cloned gene which encodes the protein which interacts with the marker protein.

In a further embodiment, assays may be devised through the use of the invention for the purpose of identifying compounds which modulate (e.g., affect either positively or negatively) interactions between a marker and its substrates and/or binding partners. Such compounds can include, but are not limited to, molecules such as antibodies, peptides, hormones, oligonucleotides, nucleic acids, and analogs thereof. Such compounds may also be obtained from any available source, including systematic libraries of natural and/or synthetic compounds. The preferred assay components for use in this embodiment is an ovarian cancer marker identified herein, the known binding partner and/or substrate of same, and the test compound. Test compounds can be supplied from any source.

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The basic principle of the assay systems used to identify compounds that interfere with the interaction between the marker and its binding partner involves preparing a reaction mixture containing the marker and its binding partner under conditions and for a time sufficient to allow the two products to interact and bind, thus forming a complex. In order to test an agent for inhibitory activity, the reaction mixture is prepared in the presence and absence of the test compound. The test compound can be initially included in the reaction mixture, or can be added at a time subsequent to the addition of the marker and its binding partner. Control reaction mixtures are incubated without the test compound or with a placebo. The formation of any complexes between the marker and its binding partner is then detected. The formation of a complex in the control reaction, but less or no such formation in the reaction mixture containing the test compound, indicates that the compound interferes with the interaction of the marker and its binding partner. Conversely, the formation of more complex in the presence of compound than in the control reaction indicates that the compound may enhance interaction of the marker and its binding partner.

The assay for compounds that interfere with the interaction of the marker with its binding partner may be conducted in a heterogeneous or homogeneous format. Heterogeneous assays involve anchoring either the marker or its binding partner onto a solid phase and detecting complexes anchored to the solid phase at the end of the reaction. In homogeneous assays, the entire reaction is carried out in a liquid phase. In either approach, the order of addition of reactants can be varied to obtain different information about the compounds being tested. For example, test compounds that interfere with the interaction between the markers and the binding partners (*e.g.*, by competition) can be identified by conducting the reaction in the presence of the test substance, *i.e.*, by adding the test substance to the reaction mixture prior to or simultaneously with the marker and its interactive binding partner. Alternatively, test compounds that disrupt preformed complexes, *e.g.*, compounds with higher binding constants that displace one of the components from the complex, can be tested by adding the test compound to the reaction mixture after complexes have been formed. The various formats are briefly described below.

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In a heterogeneous assay system, either the marker or its binding partner is anchored onto a solid surface or matrix, while the other corresponding non-anchored component may be labeled, either directly or indirectly. In practice, microtitre plates are often utilized for this approach. The anchored species can be immobilized by a number of methods, either non-covalent or covalent, that are typically well known to one who practices the art. Non-covalent attachment can often be accomplished simply by coating the solid surface with a solution of the marker or its binding partner and drying. Alternatively, an immobilized antibody specific for the assay component to be anchored can be used for this purpose. Such surfaces can often be prepared in advance and stored.

10 In related embodiments, a fusion protein can be provided which adds a domain that allows one or both of the assay components to be anchored to a matrix. For example, glutathione-S-transferase/marker fusion proteins or glutathione-S-transferase/binding partner can be adsorbed onto glutathione sepharose beads (Sigma Chemical, St. Louis, MO) or glutathione derivatized microtiter plates, which are then
15 combined with the test compound or the test compound and either the non-adsorbed marker or its binding partner, and the mixture incubated under conditions conducive to complex formation (*e.g.*, physiological conditions). Following incubation, the beads or microtiter plate wells are washed to remove any unbound assay components, the immobilized complex assessed either directly or indirectly, for example, as described
20 above. Alternatively, the complexes can be dissociated from the matrix, and the level of marker binding or activity determined using standard techniques.

Other techniques for immobilizing proteins on matrices can also be used in the screening assays of the invention. For example, either a marker or a marker binding partner can be immobilized utilizing conjugation of biotin and streptavidin. Biotinylated
25 marker protein or target molecules can be prepared from biotin-NHS (N-hydroxy-succinimide) using techniques known in the art (*e.g.*, biotinylation kit, Pierce Chemicals, Rockford, IL), and immobilized in the wells of streptavidin-coated 96 well plates (Pierce Chemical). In certain embodiments, the protein-immobilized surfaces can be prepared in advance and stored.

30 In order to conduct the assay, the corresponding partner of the immobilized assay component is exposed to the coated surface with or without the test compound. After the reaction is complete, unreacted assay components are removed (*e.g.*, by washing)

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and any complexes formed will remain immobilized on the solid surface. The detection of complexes anchored on the solid surface can be accomplished in a number of ways. Where the non-immobilized component is pre-labeled, the detection of label immobilized on the surface indicates that complexes were formed. Where the non-immobilized component is not pre-labeled, an indirect label can be used to detect complexes anchored on the surface; *e.g.*, using a labeled antibody specific for the initially non-immobilized species (the antibody, in turn, can be directly labeled or indirectly labeled with, *e.g.*, a labeled anti-Ig antibody). Depending upon the order of addition of reaction components, test compounds which modulate (inhibit or enhance) complex formation or which disrupt preformed complexes can be detected.

In an alternate embodiment of the invention, a homogeneous assay may be used. This is typically a reaction, analogous to those mentioned above, which is conducted in a liquid phase in the presence or absence of the test compound. The formed complexes are then separated from unreacted components, and the amount of complex formed is determined. As mentioned for heterogeneous assay systems, the order of addition of reactants to the liquid phase can yield information about which test compounds modulate (inhibit or enhance) complex formation and which disrupt preformed complexes.

In such a homogeneous assay, the reaction products may be separated from unreacted assay components by any of a number of standard techniques, including but not limited to: differential centrifugation, chromatography, electrophoresis and immunoprecipitation. In differential centrifugation, complexes of molecules may be separated from uncomplexed molecules through a series of centrifugal steps, due to the different sedimentation equilibria of complexes based on their different sizes and densities (see, for example, Rivas, G., and Minton, A.P., *Trends Biochem Sci* 1993 Aug;18(8):284-7). Standard chromatographic techniques may also be utilized to separate complexed molecules from uncomplexed ones. For example, gel filtration chromatography separates molecules based on size, and through the utilization of an appropriate gel filtration resin in a column format, for example, the relatively larger complex may be separated from the relatively smaller uncomplexed components. Similarly, the relatively different charge properties of the complex as compared to the uncomplexed molecules may be exploited to differentially separate the complex from

the remaining individual reactants, for example through the use of ion-exchange chromatography resins. Such resins and chromatographic techniques are well known to one skilled in the art (see, e.g., Heegaard, 1998, *J Mol. Recognit.* 11:141-148; Hage and Tweed, 1997, *J. Chromatogr. B. Biomed. Sci. Appl.*, 699:499-525). Gel electrophoresis

5 may also be employed to separate complexed molecules from unbound species (see, e.g., Ausubel *et al* (eds.), In: *Current Protocols in Molecular Biology*, J. Wiley & Sons, New York, 1999). In this technique, protein or nucleic acid complexes are separated based on size or charge, for example. In order to maintain the binding interaction during the electrophoretic process, nondenaturing gels in the absence of reducing agent are

10 typically preferred, but conditions appropriate to the particular interactants will be well known to one skilled in the art. Immunoprecipitation is another common technique utilized for the isolation of a protein-protein complex from solution (see, e.g., Ausubel *et al* (eds.), In: *Current Protocols in Molecular Biology*, J. Wiley & Sons, New York, 1999). In this technique, all proteins binding to an antibody specific to one of the

15 binding molecules are precipitated from solution by conjugating the antibody to a polymer bead that may be readily collected by centrifugation. The bound assay components are released from the beads (through a specific proteolysis event or other technique well known in the art which will not disturb the protein-protein interaction in the complex), and a second immunoprecipitation step is performed, this time utilizing

20 antibodies specific for the correspondingly different interacting assay component. In this manner, only formed complexes should remain attached to the beads. Variations in complex formation in both the presence and the absence of a test compound can be compared, thus offering information about the ability of the compound to modulate interactions between the marker and its binding partner.

25 Also within the scope of the present invention are methods for direct detection of interactions between the marker and its natural binding partner and/or a test compound in a homogeneous or heterogeneous assay system without further sample manipulation. For example, the technique of fluorescence energy transfer may be utilized (see, e.g., Lakowicz *et al*, U.S. Patent No. 5,631,169; Stavrianopoulos *et al*, U.S. Patent No.

30 4,868,103). Generally, this technique involves the addition of a fluorophore label on a first 'donor' molecule (e.g., marker or test compound) such that its emitted fluorescent energy will be absorbed by a fluorescent label on a second, 'acceptor' molecule (e.g.,

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marker or test compound), which in turn is able to fluoresce due to the absorbed energy. Alternately, the 'donor' protein molecule may simply utilize the natural fluorescent energy of tryptophan residues. Labels are chosen that emit different wavelengths of light, such that the 'acceptor' molecule label may be differentiated from that of the 'donor'. Since the efficiency of energy transfer between the labels is related to the distance separating the molecules, spatial relationships between the molecules can be assessed. In a situation in which binding occurs between the molecules, the fluorescent emission of the 'acceptor' molecule label in the assay should be maximal. An FET binding event can be conveniently measured through standard fluorometric detection means well known in the art (e.g., using a fluorimeter). A test substance which either enhances or hinders participation of one of the species in the preformed complex will result in the generation of a signal variant to that of background. In this way, test substances that modulate interactions between a marker and its binding partner can be identified in controlled assays.

In another embodiment, modulators of marker expression are identified in a method wherein a cell is contacted with a candidate compound and the expression of mRNA or protein, corresponding to a marker in the cell, is determined. The level of expression of mRNA or protein in the presence of the candidate compound is compared to the level of expression of mRNA or protein in the absence of the candidate compound. The candidate compound can then be identified as a modulator of marker expression based on this comparison. For example, when expression of marker mRNA or protein is greater (statistically significantly greater) in the presence of the candidate compound than in its absence, the candidate compound is identified as a stimulator of marker mRNA or protein expression. Conversely, when expression of marker mRNA or protein is less (statistically significantly less) in the presence of the candidate compound than in its absence, the candidate compound is identified as an inhibitor of marker mRNA or protein expression. The level of marker mRNA or protein expression in the cells can be determined by methods described herein for detecting marker mRNA or protein.

In another aspect, the invention pertains to a combination of two or more of the assays described herein. For example, a modulating agent can be identified using a cell-based or a cell free assay, and the ability of the agent to modulate the activity of a

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marker protein can be further confirmed *in vivo*, *e.g.*, in a whole animal model for cellular transformation and/or tumorigenesis.

This invention further pertains to novel agents identified by the above-described screening assays. Accordingly, it is within the scope of this invention to further use an agent identified as described herein in an appropriate animal model. For example, an agent identified as described herein (*e.g.*, an marker modulating agent, an antisense marker nucleic acid molecule, an marker-specific antibody, or an marker-binding partner) can be used in an animal model to determine the efficacy, toxicity, or side effects of treatment with such an agent. Alternatively, an agent identified as described herein can be used in an animal model to determine the mechanism of action of such an agent. Furthermore, this invention pertains to uses of novel agents identified by the above-described screening assays for treatments as described herein.

It is understood that appropriate doses of small molecule agents and protein or polypeptide agents depends upon a number of factors within the knowledge of the ordinarily skilled physician, veterinarian, or researcher. The dose(s) of these agents will vary, for example, depending upon the identity, size, and condition of the subject or sample being treated, further depending upon the route by which the composition is to be administered, if applicable, and the effect which the practitioner desires the agent to have upon the nucleic acid or polypeptide of the invention. Exemplary doses of a small molecule include milligram or microgram amounts per kilogram of subject or sample weight (*e.g.* about 1 microgram per kilogram to about 500 milligrams per kilogram, about 100 micrograms per kilogram to about 5 milligrams per kilogram, or about 1 microgram per kilogram to about 50 micrograms per kilogram). Exemplary doses of a protein or polypeptide include gram, milligram or microgram amounts per kilogram of subject or sample weight (*e.g.* about 1 microgram per kilogram to about 5 grams per kilogram, about 100 micrograms per kilogram to about 500 milligrams per kilogram, or about 1 milligram per kilogram to about 50 milligrams per kilogram). It is furthermore understood that appropriate doses of one of these agents depend upon the potency of the agent with respect to the expression or activity to be modulated. Such appropriate doses can be determined using the assays described herein. When one or more of these agents is to be administered to an animal (*e.g.* a human) in order to modulate expression or activity of a polypeptide or nucleic acid of the invention, a physician, veterinarian, or

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researcher can, for example, prescribe a relatively low dose at first, subsequently increasing the dose until an appropriate response is obtained. In addition, it is understood that the specific dose level for any particular animal subject will depend upon a variety of factors including the activity of the specific agent employed, the age, body weight, general health, gender, and diet of the subject, the time of administration, the route of administration, the rate of excretion, any drug combination, and the degree of expression or activity to be modulated.

A pharmaceutical composition of the invention is formulated to be compatible with its intended route of administration. Examples of routes of administration include parenteral, *e.g.*, intravenous, intradermal, subcutaneous, oral (*e.g.*, inhalation), transdermal (topical), transmucosal, and rectal administration. Solutions or suspensions used for parenteral, intradermal, or subcutaneous application can include the following components: a sterile diluent such as water for injection, saline solution, fixed oils, polyethylene glycols, glycerine, propylene glycol or other synthetic solvents; antibacterial agents such as benzyl alcohol or methyl parabens; antioxidants such as ascorbic acid or sodium bisulfite; chelating agents such as ethylenediamine-tetraacetic acid; buffers such as acetates, citrates or phosphates and agents for the adjustment of tonicity such as sodium chloride or dextrose. pH can be adjusted with acids or bases, such as hydrochloric acid or sodium hydroxide. The parenteral preparation can be enclosed in ampules, disposable syringes or multiple dose vials made of glass or plastic.

Pharmaceutical compositions suitable for injectable use include sterile aqueous solutions (where water soluble) or dispersions and sterile powders for the extemporaneous preparation of sterile injectable solutions or dispersions. For intravenous administration, suitable carriers include physiological saline, bacteriostatic water, Cremophor EL (BASF; Parsippany, NJ) or phosphate buffered saline (PBS). In all cases, the composition must be sterile and should be fluid to the extent that easy syringability exists. It must be stable under the conditions of manufacture and storage and must be preserved against the contaminating action of microorganisms such as bacteria and fungi. The carrier can be a solvent or dispersion medium containing, for example, water, ethanol, polyol (for example, glycerol, propylene glycol, and liquid polyethylene glycol, and the like), and suitable mixtures thereof. The proper fluidity can be maintained, for example, by the use of a coating such as lecithin, by the maintenance

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of the required particle size in the case of dispersion and by the use of surfactants.

Prevention of the action of microorganisms can be achieved by various antibacterial and antifungal agents, for example, parabens, chlorobutanol, phenol, ascorbic acid, thimerosal, and the like. In many cases, it will be preferable to include isotonic agents,
5 for example, sugars, polyalcohols such as mannitol, sorbitol, or sodium chloride in the composition. Prolonged absorption of the injectable compositions can be brought about by including in the composition an agent which delays absorption, for example, aluminum monostearate and gelatin.

Sterile injectable solutions can be prepared by incorporating the active
10 compound (e.g., a polypeptide or antibody) in the required amount in an appropriate solvent with one or a combination of ingredients enumerated above, as required, followed by filtered sterilization. Generally, dispersions are prepared by incorporating the active compound into a sterile vehicle which contains a basic dispersion medium, and then incorporating the required other ingredients from those enumerated above. In
15 the case of sterile powders for the preparation of sterile injectable solutions, the preferred methods of preparation are vacuum drying and freeze-drying which yields a powder of the active ingredient plus any additional desired ingredient from a previously sterile-filtered solution thereof.

Oral compositions generally include an inert diluent or an edible carrier. They
20 can be enclosed in gelatin capsules or compressed into tablets. For the purpose of oral therapeutic administration, the active compound can be incorporated with excipients and used in the form of tablets, troches, or capsules. Oral compositions can also be prepared using a fluid carrier for use as a mouthwash, wherein the compound in the fluid carrier is applied orally and swished and expectorated or swallowed.

25 Pharmaceutically compatible binding agents, and/or adjuvant materials can be included as part of the composition. The tablets, pills, capsules, troches, and the like can contain any of the following ingredients, or compounds of a similar nature: a binder such as microcrystalline cellulose, gum tragacanth or gelatin; an excipient such as starch or lactose, a disintegrating agent such as alginic acid, Primogel, or corn starch; a
30 lubricant such as magnesium stearate or Sterotes; a glidant such as colloidal silicon dioxide; a sweetening agent such as sucrose or saccharin; or a flavoring agent such as peppermint, methyl salicylate, or orange flavoring.

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For administration by inhalation, the compounds are delivered in the form of an aerosol spray from a pressurized container or dispenser which contains a suitable propellant, *e.g.*, a gas such as carbon dioxide, or a nebulizer.

Systemic administration can also be by transmucosal or transdermal means. For
5 transmucosal or transdermal administration, penetrants appropriate to the barrier to be permeated are used in the formulation. Such penetrants are generally known in the art, and include, for example, for transmucosal administration, detergents, bile salts, and fusidic acid derivatives. Transmucosal administration can be accomplished through the use of nasal sprays or suppositories. For transdermal administration, the active
10 compounds are formulated into ointments, salves, gels, or creams as generally known in the art.

The compounds can also be prepared in the form of suppositories (*e.g.*, with conventional suppository bases such as cocoa butter and other glycerides) or retention enemas for rectal delivery.

15 In one embodiment, the active compounds are prepared with carriers that will protect the compound against rapid elimination from the body, such as a controlled release formulation, including implants and microencapsulated delivery systems. Biodegradable, biocompatible polymers can be used, such as ethylene vinyl acetate, polyanhydrides, polyglycolic acid, collagen, polyorthoesters, and polylactic acid.
20 Methods for preparation of such formulations will be apparent to those skilled in the art. The materials can also be obtained commercially from Alza Corporation and Nova Pharmaceuticals, Inc. Liposomal suspensions (including liposomes having monoclonal antibodies incorporated therein or thereon) can also be used as pharmaceutically acceptable carriers. These can be prepared according to methods known to those skilled
25 in the art, for example, as described in U.S. Patent No. 4,522,811.

It is especially advantageous to formulate oral or parenteral compositions in dosage unit form for ease of administration and uniformity of dosage. Dosage unit form as used herein refers to physically discrete units suited as unitary dosages for the subject to be treated; each unit containing a predetermined quantity of active compound
30 calculated to produce the desired therapeutic effect in association with the required pharmaceutical carrier. The specification for the dosage unit forms of the invention are dictated by and directly dependent on the unique characteristics of the active compound

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and the particular therapeutic effect to be achieved, and the limitations inherent in the art of compounding such an active compound for the treatment of individuals.

For antibodies, the preferred dosage is 0.1 mg/kg to 100 mg/kg of body weight (generally 10 mg/kg to 20 mg/kg). If the antibody is to act in the brain, a dosage of 50 mg/kg to 100 mg/kg is usually appropriate. Generally, partially human antibodies and fully human antibodies have a longer half-life within the human body than other antibodies. Accordingly, lower dosages and less frequent administration is often possible. Modifications such as lipidation can be used to stabilize antibodies and to enhance uptake and tissue penetration (e.g., into the ovarian epithelium). A method for lipidation of antibodies is described by Cruikshank *et al.* (1997) *J. Acquired Immune Deficiency Syndromes and Human Retrovirology* 14:193.

The nucleic acid molecules corresponding to a marker of the invention can be inserted into vectors and used as gene therapy vectors. Gene therapy vectors can be delivered to a subject by, for example, intravenous injection, local administration (U.S. Patent 5,328,470), or by stereotactic injection (see, e.g., Chen *et al.*, 1994, *Proc. Natl. Acad. Sci. USA* 91:3054-3057). The pharmaceutical preparation of the gene therapy vector can include the gene therapy vector in an acceptable diluent, or can comprise a slow release matrix in which the gene delivery vehicle is imbedded. Alternatively, where the complete gene delivery vector can be produced intact from recombinant cells, e.g. retroviral vectors, the pharmaceutical preparation can include one or more cells which produce the gene delivery system.

The pharmaceutical compositions can be included in a container, pack, or dispenser together with instructions for administration.

V. Predictive Medicine

The present invention pertains to the field of predictive medicine in which diagnostic assays, prognostic assays, pharmacogenomics, and monitoring clinical trails are used for prognostic (predictive) purposes to thereby treat an individual prophylactically. Accordingly, one aspect of the present invention relates to diagnostic assays for determining the level of expression of polypeptides or nucleic acids corresponding to one or more markers of the invention, in order to determine whether an individual is at risk of developing ovarian cancer. Such assays can be used for

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prognostic or predictive purposes to thereby prophylactically treat an individual prior to the onset of the cancer.

Yet another aspect of the invention pertains to monitoring the influence of agents (e.g., drugs or other compounds administered either to inhibit ovarian cancer or to treat
5 or prevent any other disorder {i.e. in order to understand any ovarian carcinogenic effects that such treatment may have}) on the expression or activity of a marker of the invention in clinical trials. These and other agents are described in further detail in the following sections.

10 A. Diagnostic Assays

An exemplary method for detecting the presence or absence of a polypeptide or nucleic acid corresponding to a marker of the invention in a biological sample involves obtaining a biological sample (e.g. an ovary-associated body fluid) from a test subject and contacting the biological sample with a compound or an agent capable of detecting
15 the polypeptide or nucleic acid (e.g., mRNA, genomic DNA, or cDNA). The detection methods of the invention can thus be used to detect mRNA, protein, cDNA, or genomic DNA, for example, in a biological sample *in vitro* as well as *in vivo*. For example, *in vitro* techniques for detection of mRNA include Northern hybridizations and *in situ* hybridizations. *In vitro* techniques for detection of a polypeptide corresponding to a
20 marker of the invention include enzyme linked immunosorbent assays (ELISAs), Western blots, immunoprecipitations and immunofluorescence. *In vitro* techniques for detection of genomic DNA include Southern hybridizations. Furthermore, *in vivo* techniques for detection of a polypeptide corresponding to a marker of the invention include introducing into a subject a labeled antibody directed against the polypeptide.
25 For example, the antibody can be labeled with a radioactive marker whose presence and location in a subject can be detected by standard imaging techniques.

A general principle of such diagnostic and prognostic assays involves preparing a sample or reaction mixture that may contain a marker, and a probe, under appropriate conditions and for a time sufficient to allow the marker and probe to interact and bind,
30 thus forming a complex that can be removed and/or detected in the reaction mixture. These assays can be conducted in a variety of ways.

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For example, one method to conduct such an assay would involve anchoring the marker or probe onto a solid phase support, also referred to as a substrate, and detecting target marker/probe complexes anchored on the solid phase at the end of the reaction.

In one embodiment of such a method, a sample from a subject, which is to be assayed
5 for presence and/or concentration of marker, can be anchored onto a carrier or solid phase support. In another embodiment, the reverse situation is possible, in which the probe can be anchored to a solid phase and a sample from a subject can be allowed to react as an unanchored component of the assay.

There are many established methods for anchoring assay components to a solid
10 phase. These include, without limitation, marker or probe molecules which are immobilized through conjugation of biotin and streptavidin. Such biotinylated assay components can be prepared from biotin-NHS (N-hydroxy-succinimide) using techniques known in the art (*e.g.*, biotinylation kit, Pierce Chemicals, Rockford, IL), and immobilized in the wells of streptavidin-coated 96 well plates (Pierce Chemical). In
15 certain embodiments, the surfaces with immobilized assay components can be prepared in advance and stored.

Other suitable carriers or solid phase supports for such assays include any material capable of binding the class of molecule to which the marker or probe belongs. Well-known supports or carriers include, but are not limited to, glass, polystyrene,
20 nylon, polypropylene, nylon, polyethylene, dextran, amylases, natural and modified celluloses, polyacrylamides, gabbros, and magnetite.

In order to conduct assays with the above mentioned approaches, the non-immobilized component is added to the solid phase upon which the second component is anchored. After the reaction is complete, uncomplexed components may be removed
25 (*e.g.*, by washing) under conditions such that any complexes formed will remain immobilized upon the solid phase. The detection of marker/probe complexes anchored to the solid phase can be accomplished in a number of methods outlined herein.

In a preferred embodiment, the probe, when it is the unanchored assay component, can be labeled for the purpose of detection and readout of the assay, either
30 directly or indirectly, with detectable labels discussed herein and which are well-known to one skilled in the art.

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It is also possible to directly detect marker/probe complex formation without further manipulation or labeling of either component (marker or probe), for example by utilizing the technique of fluorescence energy transfer (see, for example, Lakowicz *et al.*, U.S. Patent No. 5,631,169; Stavrianopoulos, *et al.*, U.S. Patent No. 4,868,103). A fluorophore label on the first, 'donor' molecule is selected such that, upon excitation with incident light of appropriate wavelength, its emitted fluorescent energy will be absorbed by a fluorescent label on a second 'acceptor' molecule, which in turn is able to fluoresce due to the absorbed energy. Alternately, the 'donor' protein molecule may simply utilize the natural fluorescent energy of tryptophan residues. Labels are chosen that emit different wavelengths of light, such that the 'acceptor' molecule label may be differentiated from that of the 'donor'. Since the efficiency of energy transfer between the labels is related to the distance separating the molecules, spatial relationships between the molecules can be assessed. In a situation in which binding occurs between the molecules, the fluorescent emission of the 'acceptor' molecule label in the assay should be maximal. An FET binding event can be conveniently measured through standard fluorometric detection means well known in the art (*e.g.*, using a fluorimeter).

In another embodiment, determination of the ability of a probe to recognize a marker can be accomplished without labeling either assay component (probe or marker) by utilizing a technology such as real-time Biomolecular Interaction Analysis (BIA) (see, *e.g.*, Sjolander, S. and Urbaniczky, C., 1991, *Anal. Chem.* 63:2338-2345 and Szabo *et al.*, 1995, *Curr. Opin. Struct. Biol.* 5:699-705). As used herein, "BIA" or "surface plasmon resonance" is a technology for studying biospecific interactions in real time, without labeling any of the interactants (*e.g.*, BIAcore). Changes in the mass at the binding surface (indicative of a binding event) result in alterations of the refractive index of light near the surface (the optical phenomenon of surface plasmon resonance (SPR)), resulting in a detectable signal which can be used as an indication of real-time reactions between biological molecules.

Alternatively, in another embodiment, analogous diagnostic and prognostic assays can be conducted with marker and probe as solutes in a liquid phase. In such an assay, the complexed marker and probe are separated from uncomplexed components by any of a number of standard techniques, including but not limited to: differential centrifugation, chromatography, electrophoresis and immunoprecipitation. In

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differential centrifugation, marker/probe complexes may be separated from uncomplexed assay components through a series of centrifugal steps, due to the different sedimentation equilibria of complexes based on their different sizes and densities (see, for example, Rivas, G., and Minton, A.P., 1993, *Trends Biochem Sci.* 18(8):284-7).

- 5 Standard chromatographic techniques may also be utilized to separate complexed molecules from uncomplexed ones. For example, gel filtration chromatography separates molecules based on size, and through the utilization of an appropriate gel filtration resin in a column format, for example, the relatively larger complex may be separated from the relatively smaller uncomplexed components. Similarly, the
- 10 relatively different charge properties of the marker/probe complex as compared to the uncomplexed components may be exploited to differentiate the complex from uncomplexed components, for example through the utilization of ion-exchange chromatography resins. Such resins and chromatographic techniques are well known to one skilled in the art (see, e.g., Heegaard, N.H., 1998, *J. Mol. Recognit.* Winter 11(1-
- 15 6):141-8; Hage, D.S., and Tweed, S.A. *J Chromatogr B Biomed Sci Appl* 1997 Oct 10;699(1-2):499-525). Gel electrophoresis may also be employed to separate complexed assay components from unbound components (see, e.g., Ausubel *et al.*, ed., *Current Protocols in Molecular Biology*, John Wiley & Sons, New York, 1987-1999). In this technique, protein or nucleic acid complexes are separated based on size or
- 20 charge, for example. In order to maintain the binding interaction during the electrophoretic process, non-denaturing gel matrix materials and conditions in the absence of reducing agent are typically preferred. Appropriate conditions to the particular assay and components thereof will be well known to one skilled in the art.

- In a particular embodiment, the level of mRNA corresponding to the marker can
- 25 be determined both by *in situ* and by *in vitro* formats in a biological sample using methods known in the art. The term "biological sample" is intended to include tissues, cells, biological fluids and isolates thereof, isolated from a subject, as well as tissues, cells and fluids present within a subject. Many expression detection methods use isolated RNA. For *in vitro* methods, any RNA isolation technique that does not select
- 30 against the isolation of mRNA can be utilized for the purification of RNA from ovarian cells (see, e.g., Ausubel *et al.*, ed., *Current Protocols in Molecular Biology*, John Wiley & Sons, New York 1987-1999). Additionally, large numbers of tissue samples can

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readily be processed using techniques well known to those of skill in the art, such as, for example, the single-step RNA isolation process of Chomczynski (1989, U.S. Patent No. 4,843,155).

The isolated mRNA can be used in hybridization or amplification assays that
5 include, but are not limited to, Southern or Northern analyses, polymerase chain reaction analyses and probe arrays. One preferred diagnostic method for the detection of mRNA levels involves contacting the isolated mRNA with a nucleic acid molecule (probe) that can hybridize to the mRNA encoded by the gene being detected. The nucleic acid probe can be, for example, a full-length cDNA, or a portion thereof, such as an oligonucleotide
10 of at least 7, 15, 30, 50, 100, 250 or 500 nucleotides in length and sufficient to specifically hybridize under stringent conditions to a mRNA or genomic DNA encoding a marker of the present invention. Other suitable probes for use in the diagnostic assays of the invention are described herein. Hybridization of an mRNA with the probe indicates that the marker in question is being expressed.

15 In one format, the mRNA is immobilized on a solid surface and contacted with a probe, for example by running the isolated mRNA on an agarose gel and transferring the mRNA from the gel to a membrane, such as nitrocellulose. In an alternative format, the probe(s) are immobilized on a solid surface and the mRNA is contacted with the probe(s), for example, in an Affymetrix gene chip array. A skilled artisan can readily
20 adapt known mRNA detection methods for use in detecting the level of mRNA encoded by the markers of the present invention.

An alternative method for determining the level of mRNA corresponding to a marker of the present invention in a sample involves the process of nucleic acid amplification, *e.g.*, by rtPCR (the experimental embodiment set forth in Mullis, 1987,
25 U.S. Patent No. 4,683,202), ligase chain reaction (Barany, 1991, *Proc. Natl. Acad. Sci. USA*, 88:189-193), self sustained sequence replication (Guatelli *et al.*, 1990, *Proc. Natl. Acad. Sci. USA* 87:1874-1878), transcriptional amplification system (Kwoh *et al.*, 1989, *Proc. Natl. Acad. Sci. USA* 86:1173-1177), Q-Beta Replicase (Lizardi *et al.*, 1988, *Bio/Technology* 6:1197), rolling circle replication (Lizardi *et al.*, U.S. Patent No.
30 5,854,033) or any other nucleic acid amplification method, followed by the detection of the amplified molecules using techniques well known to those of skill in the art. These detection schemes are especially useful for the detection of nucleic acid molecules if

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such molecules are present in very low numbers. As used herein, amplification primers are defined as being a pair of nucleic acid molecules that can anneal to 5' or 3' regions of a gene (plus and minus strands, respectively, or vice-versa) and contain a short region in between. In general, amplification primers are from about 10 to 30 nucleotides in length and flank a region from about 50 to 200 nucleotides in length. Under appropriate conditions and with appropriate reagents, such primers permit the amplification of a nucleic acid molecule comprising the nucleotide sequence flanked by the primers.

For *in situ* methods, mRNA does not need to be isolated from the ovarian cells prior to detection. In such methods, a cell or tissue sample is prepared/processed using known histological methods. The sample is then immobilized on a support, typically a glass slide, and then contacted with a probe that can hybridize to mRNA that encodes the marker.

As an alternative to making determinations based on the absolute expression level of the marker, determinations may be based on the normalized expression level of the marker. Expression levels are normalized by correcting the absolute expression level of a marker by comparing its expression to the expression of a gene that is not a marker, *e.g.*, a housekeeping gene that is constitutively expressed. Suitable genes for normalization include housekeeping genes such as the actin gene, or epithelial cell-specific genes. This normalization allows the comparison of the expression level in one sample, *e.g.*, a patient sample, to another sample, *e.g.*, a non-ovarian cancer sample, or between samples from different sources.

Alternatively, the expression level can be provided as a relative expression level. To determine a relative expression level of a marker, the level of expression of the marker is determined for 10 or more samples of normal versus cancer cell isolates, preferably 50 or more samples, prior to the determination of the expression level for the sample in question. The mean expression level of each of the genes assayed in the larger number of samples is determined and this is used as a baseline expression level for the marker. The expression level of the marker determined for the test sample (absolute level of expression) is then divided by the mean expression value obtained for that marker. This provides a relative expression level.

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Preferably, the samples used in the baseline determination will be from ovarian cancer or from non-ovarian cancer cells of ovarian tissue. The choice of the cell source is dependent on the use of the relative expression level. Using expression found in normal tissues as a mean expression score aids in validating whether the marker assayed
5 is ovarian specific (versus normal cells). In addition, as more data is accumulated, the mean expression value can be revised, providing improved relative expression values based on accumulated data. Expression data from ovarian cells provides a means for grading the severity of the ovarian cancer state.

In another embodiment of the present invention, a polypeptide corresponding to
10 a marker is detected. A preferred agent for detecting a polypeptide of the invention is an antibody capable of binding to a polypeptide corresponding to a marker of the invention, preferably an antibody with a detectable label. Antibodies can be polyclonal, or more preferably, monoclonal. An intact antibody, or a fragment thereof (*e.g.*, Fab or F(ab')₂) can be used. The term "labeled", with regard to the probe or antibody, is intended to
15 encompass direct labeling of the probe or antibody by coupling (*i.e.*, physically linking) a detectable substance to the probe or antibody, as well as indirect labeling of the probe or antibody by reactivity with another reagent that is directly labeled. Examples of indirect labeling include detection of a primary antibody using a fluorescently labeled secondary antibody and end-labeling of a DNA probe with biotin such that it can be
20 detected with fluorescently labeled streptavidin.

Proteins from ovarian cells can be isolated using techniques that are well known to those of skill in the art. The protein isolation methods employed can, for example, be such as those described in Harlow and Lane (Harlow and Lane, 1988, *Antibodies: A Laboratory Manual*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New
25 York).

A variety of formats can be employed to determine whether a sample contains a protein that binds to a given antibody. Examples of such formats include, but are not limited to, enzyme immunoassay (EIA), radioimmunoassay (RIA), Western blot analysis and enzyme linked immunoabsorbant assay (ELISA). A skilled artisan can
30 readily adapt known protein/antibody detection methods for use in determining whether ovarian cells express a marker of the present invention.

In one format, antibodies, or antibody fragments, can be used in methods such as Western blots or immunofluorescence techniques to detect the expressed proteins. In such uses, it is generally preferable to immobilize either the antibody or proteins on a solid support. Suitable solid phase supports or carriers include any support capable of binding an antigen or an antibody. Well-known supports or carriers include glass, polystyrene, polypropylene, polyethylene, dextran, nylon, amylases, natural and modified celluloses, polyacrylamides, gabbros, and magnetite.

One skilled in the art will know many other suitable carriers for binding antibody or antigen, and will be able to adapt such support for use with the present invention. For example, protein isolated from ovarian cells can be run on a polyacrylamide gel electrophoresis and immobilized onto a solid phase support such as nitrocellulose. The support can then be washed with suitable buffers followed by treatment with the detectably labeled antibody. The solid phase support can then be washed with the buffer a second time to remove unbound antibody. The amount of bound label on the solid support can then be detected by conventional means.

The invention also encompasses kits for detecting the presence of a polypeptide or nucleic acid corresponding to a marker of the invention in a biological sample (*e.g.* an ovary-associated body fluid such as a urine sample). Such kits can be used to determine if a subject is suffering from or is at increased risk of developing ovarian cancer. For example, the kit can comprise a labeled compound or agent capable of detecting a polypeptide or an mRNA encoding a polypeptide corresponding to a marker of the invention in a biological sample and means for determining the amount of the polypeptide or mRNA in the sample (*e.g.*, an antibody which binds the polypeptide or an oligonucleotide probe which binds to DNA or mRNA encoding the polypeptide). Kits can also include instructions for interpreting the results obtained using the kit.

For antibody-based kits, the kit can comprise, for example: (1) a first antibody (*e.g.*, attached to a solid support) which binds to a polypeptide corresponding to a marker of the invention; and, optionally, (2) a second, different antibody which binds to either the polypeptide or the first antibody and is conjugated to a detectable label.

For oligonucleotide-based kits, the kit can comprise, for example: (1) an oligonucleotide, *e.g.*, a detectably labeled oligonucleotide, which hybridizes to a nucleic acid sequence encoding a polypeptide corresponding to a marker of the invention or (2)

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a pair of primers useful for amplifying a nucleic acid molecule corresponding to a marker of the invention. The kit can also comprise, *e.g.*, a buffering agent, a preservative, or a protein stabilizing agent. The kit can further comprise components necessary for detecting the detectable label (*e.g.*, an enzyme or a substrate). The kit can
5 also contain a control sample or a series of control samples which can be assayed and compared to the test sample. Each component of the kit can be enclosed within an individual container and all of the various containers can be within a single package, along with instructions for interpreting the results of the assays performed using the kit.

10 B. Pharmacogenomics

Agents or modulators which have a stimulatory or inhibitory effect on expression of a marker of the invention can be administered to individuals to treat (prophylactically or therapeutically) ovarian cancer in the patient. In conjunction with such treatment, the pharmacogenomics (*i.e.*, the study of the relationship between an individual's genotype
15 and that individual's response to a foreign compound or drug) of the individual may be considered. Differences in metabolism of therapeutics can lead to severe toxicity or therapeutic failure by altering the relation between dose and blood concentration of the pharmacologically active drug. Thus, the pharmacogenomics of the individual permits the selection of effective agents (*e.g.*, drugs) for prophylactic or therapeutic treatments
20 based on a consideration of the individual's genotype. Such pharmacogenomics can further be used to determine appropriate dosages and therapeutic regimens. Accordingly, the level of expression of a marker of the invention in an individual can be determined to thereby select appropriate agent(s) for therapeutic or prophylactic treatment of the individual.

25 Pharmacogenomics deals with clinically significant variations in the response to drugs due to altered drug disposition and abnormal action in affected persons. See, *e.g.*, Linder (1997) *Clin. Chem.* 43(2):254-266. In general, two types of pharmacogenetic conditions can be differentiated. Genetic conditions transmitted as a single factor altering the way drugs act on the body are referred to as "altered drug action." Genetic
30 conditions transmitted as single factors altering the way the body acts on drugs are referred to as "altered drug metabolism". These pharmacogenetic conditions can occur either as rare defects or as polymorphisms. For example, glucose-6-phosphate

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dehydrogenase (G6PD) deficiency is a common inherited enzymopathy in which the main clinical complication is hemolysis after ingestion of oxidant drugs (anti-malarials, sulfonamides, analgesics, nitrofurans) and consumption of fava beans.

As an illustrative embodiment, the activity of drug metabolizing enzymes is a major determinant of both the intensity and duration of drug action. The discovery of genetic polymorphisms of drug metabolizing enzymes (*e.g.*, N-acetyltransferase 2 (NAT 2) and cytochrome P450 enzymes CYP2D6 and CYP2C19) has provided an explanation as to why some patients do not obtain the expected drug effects or show exaggerated drug response and serious toxicity after taking the standard and safe dose of a drug.

These polymorphisms are expressed in two phenotypes in the population, the extensive metabolizer (EM) and poor metabolizer (PM). The prevalence of PM is different among different populations. For example, the gene coding for CYP2D6 is highly polymorphic and several mutations have been identified in PM, which all lead to the absence of functional CYP2D6. Poor metabolizers of CYP2D6 and CYP2C19 quite frequently experience exaggerated drug response and side effects when they receive standard doses. If a metabolite is the active therapeutic moiety, a PM will show no therapeutic response, as demonstrated for the analgesic effect of codeine mediated by its CYP2D6-formed metabolite morphine. The other extreme are the so called ultra-rapid metabolizers who do not respond to standard doses. Recently, the molecular basis of ultra-rapid metabolism has been identified to be due to CYP2D6 gene amplification.

Thus, the level of expression of a marker of the invention in an individual can be determined to thereby select appropriate agent(s) for therapeutic or prophylactic treatment of the individual. In addition, pharmacogenetic studies can be used to apply genotyping of polymorphic alleles encoding drug-metabolizing enzymes to the identification of an individual's drug responsiveness phenotype. This knowledge, when applied to dosing or drug selection, can avoid adverse reactions or therapeutic failure and thus enhance therapeutic or prophylactic efficiency when treating a subject with a modulator of expression of a marker of the invention.

30 C. Monitoring Clinical Trials

Monitoring the influence of agents (*e.g.*, drug compounds) on the level of expression of a marker of the invention can be applied not only in basic drug screening,

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but also in clinical trials. For example, the effectiveness of an agent to affect marker expression can be monitored in clinical trials of subjects receiving treatment for ovarian cancer. In a preferred embodiment, the present invention provides a method for monitoring the effectiveness of treatment of a subject with an agent (*e.g.*, an agonist, antagonist, peptidomimetic, protein, peptide, nucleic acid, small molecule, or other drug candidate) comprising the steps of (i) obtaining a pre-administration sample from a subject prior to administration of the agent; (ii) detecting the level of expression of one or more selected markers of the invention in the pre-administration sample; (iii) obtaining one or more post-administration samples from the subject; (iv) detecting the level of expression of the marker(s) in the post-administration samples; (v) comparing the level of expression of the marker(s) in the pre-administration sample with the level of expression of the marker(s) in the post-administration sample or samples; and (vi) altering the administration of the agent to the subject accordingly. For example, increased administration of the agent can be desirable to increase expression of the marker(s) to higher levels than detected, *i.e.*, to increase the effectiveness of the agent. Alternatively, decreased administration of the agent can be desirable to decrease expression of the marker(s) to lower levels than detected, *i.e.*, to decrease the effectiveness of the agent.

D. Electronic Apparatus Readable Media and Arrays

Electronic apparatus readable media comprising a marker of the present invention is also provided. As used herein, "electronic apparatus readable media" refers to any suitable medium for storing, holding or containing data or information that can be read and accessed directly by an electronic apparatus. Such media can include, but are not limited to: magnetic storage media, such as floppy discs, hard disc storage medium, and magnetic tape; optical storage media such as compact disc; electronic storage media such as RAM, ROM, EPROM, EEPROM and the like; general hard disks and hybrids of these categories such as magnetic/optical storage media. The medium is adapted or configured for having recorded thereon a marker of the present invention.

As used herein, the term "electronic apparatus" is intended to include any suitable computing or processing apparatus or other device configured or adapted for storing data or information. Examples of electronic apparatus suitable for use with the

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present invention include stand-alone computing apparatus; networks, including a local area network (LAN), a wide area network (WAN) Internet, Intranet, and Extranet; electronic appliances such as a personal digital assistants (PDAs), cellular phone, pager and the like; and local and distributed processing systems.

5 As used herein, "recorded" refers to a process for storing or encoding information on the electronic apparatus readable medium. Those skilled in the art can readily adopt any of the presently known methods for recording information on known media to generate manufactures comprising the markers of the present invention.

 A variety of software programs and formats can be used to store the marker
10 information of the present invention on the electronic apparatus readable medium. For example, the nucleic acid sequence corresponding to the markers can be represented in a word processing text file, formatted in commercially-available software such as WordPerfect and MicroSoft Word, or represented in the form of an ASCII file, stored in a database application, such as DB2, Sybase, Oracle, or the like, as well as in other
15 forms. Any number of dataprocessor structuring formats (*e.g.*, text file or database) may be employed in order to obtain or create a medium having recorded thereon the the markers of the present invention.

 By providing the markers of the invention in readable form, one can routinely access the marker sequence information for a variety of purposes. For example, one
20 skilled in the art can use the nucleotide or amino acid sequences of the present invention in readable form to compare a target sequence or target structural motif with the sequence information stored within the data storage means. Search means are used to identify fragments or regions of the sequences of the invention which match a particular target sequence or target motif.

25 The present invention therefore provides a medium for holding instructions for performing a method for determining whether a subject has ovarian cancer or a pre-disposition to ovarian cancer, wherein the method comprises the steps of determining the presence or absence of a marker and based on the presence or absence of the marker, determining whether the subject has ovarian cancer or a pre-disposition to ovarian
30 cancer and/or recommending a particular treatment for ovarian cancer or pre-ovarian cancer condition.

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The present invention further provides in an electronic system and/or in a network, a method for determining whether a subject has ovarian cancer or a pre-disposition to ovarian cancer associated with a marker wherein the method comprises the steps of determining the presence or absence of the marker, and based on the
5 presence or absence of the marker, determining whether the subject has ovarian cancer or a pre-disposition to ovarian cancer, and/or recommending a particular treatment for the ovarian cancer or pre-ovarian cancer condition. The method may further comprise the step of receiving phenotypic information associated with the subject and/or acquiring from a network phenotypic information associated with the subject.

10 The present invention also provides in a network, a method for determining whether a subject has ovarian cancer or a pre-disposition to ovarian cancer associated with a marker, said method comprising the steps of receiving information associated with the marker receiving phenotypic information associated with the subject, acquiring information from the network corresponding to the marker and/or ovarian cancer, and
15 based on one or more of the phenotypic information, the marker, and the acquired information, determining whether the subject has a ovarian cancer or a pre-disposition to ovarian cancer. The method may further comprise the step of recommending a particular treatment for the ovarian cancer or pre-ovarian cancer condition.

The present invention also provides a business method for determining whether a
20 subject has ovarian cancer or a pre-disposition to ovarian cancer, said method comprising the steps of receiving information associated with the marker, receiving phenotypic information associated with the subject, acquiring information from the network corresponding to the marker and/or ovarian cancer, and based on one or more of the phenotypic information, the marker, and the acquired information, determining
25 whether the subject has ovarian cancer or a pre-disposition to ovarian cancer. The method may further comprise the step of recommending a particular treatment for the ovarian cancer or pre-ovarian cancer condition.

The invention also includes an array comprising a marker of the present invention. The array can be used to assay expression of one or more genes in the array.
30 In one embodiment, the array can be used to assay gene expression in a tissue to ascertain tissue specificity of genes in the array. In this manner, up to about 7600 genes

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can be simultaneously assayed for expression. This allows a profile to be developed showing a battery of genes specifically expressed in one or more tissues.

In addition to such qualitative determination, the invention allows the quantitation of gene expression. Thus, not only tissue specificity, but also the level of expression of a battery of genes in the tissue is ascertainable. Thus, genes can be grouped on the basis of their tissue expression *per se* and level of expression in that tissue. This is useful, for example, in ascertaining the relationship of gene expression between or among tissues. Thus, one tissue can be perturbed and the effect on gene expression in a second tissue can be determined. In this context, the effect of one cell type on another cell type in response to a biological stimulus can be determined. Such a determination is useful, for example, to know the effect of cell-cell interaction at the level of gene expression. If an agent is administered therapeutically to treat one cell type but has an undesirable effect on another cell type, the invention provides an assay to determine the molecular basis of the undesirable effect and thus provides the opportunity to co-administer a counteracting agent or otherwise treat the undesired effect. Similarly, even within a single cell type, undesirable biological effects can be determined at the molecular level. Thus, the effects of an agent on expression of other than the target gene can be ascertained and counteracted.

In another embodiment, the array can be used to monitor the time course of expression of one or more genes in the array. This can occur in various biological contexts, as disclosed herein, for example development of ovarian cancer, progression of ovarian cancer, and processes, such a cellular transformation associated with ovarian cancer.

The array is also useful for ascertaining the effect of the expression of a gene on the expression of other genes in the same cell or in different cells. This provides, for example, for a selection of alternate molecular targets for therapeutic intervention if the ultimate or downstream target cannot be regulated.

The array is also useful for ascertaining differential expression patterns of one or more genes in normal and abnormal cells. This provides a battery of genes that could serve as a molecular target for diagnosis or therapeutic intervention.

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E. Surrogate Markers

The markers of the invention may serve as surrogate markers for one or more disorders or disease states or for conditions leading up to disease states, and in particular, ovarian cancer. As used herein, a "surrogate marker" is an objective biochemical marker which correlates with the absence or presence of a disease or disorder, or with the progression of a disease or disorder (*e.g.*, with the presence or absence of a tumor). The presence or quantity of such markers is independent of the disease. Therefore, these markers may serve to indicate whether a particular course of treatment is effective in lessening a disease state or disorder. Surrogate markers are of particular use when the presence or extent of a disease state or disorder is difficult to assess through standard methodologies (*e.g.*, early stage tumors), or when an assessment of disease progression is desired before a potentially dangerous clinical endpoint is reached (*e.g.*, an assessment of cardiovascular disease may be made using cholesterol levels as a surrogate marker, and an analysis of HIV infection may be made using HIV RNA levels as a surrogate marker, well in advance of the undesirable clinical outcomes of myocardial infarction or fully-developed AIDS). Examples of the use of surrogate markers in the art include: Koomen *et al.* (2000) *J. Mass. Spectrom.* 35: 258-264; and James (1994) *AIDS Treatment News Archive* 209.

The markers of the invention are also useful as pharmacodynamic markers. As used herein, a "pharmacodynamic marker" is an objective biochemical marker which correlates specifically with drug effects. The presence or quantity of a pharmacodynamic marker is not related to the disease state or disorder for which the drug is being administered; therefore, the presence or quantity of the marker is indicative of the presence or activity of the drug in a subject. For example, a pharmacodynamic marker may be indicative of the concentration of the drug in a biological tissue, in that the marker is either expressed or transcribed or not expressed or transcribed in that tissue in relationship to the level of the drug. In this fashion, the distribution or uptake of the drug may be monitored by the pharmacodynamic marker. Similarly, the presence or quantity of the pharmacodynamic marker may be related to the presence or quantity of the metabolic product of a drug, such that the presence or quantity of the marker is indicative of the relative breakdown rate of the drug *in vivo*. Pharmacodynamic markers are of particular use in increasing the sensitivity of detection

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of drug effects, particularly when the drug is administered in low doses. Since even a small amount of a drug may be sufficient to activate multiple rounds of marker transcription or expression, the amplified marker may be in a quantity which is more readily detectable than the drug itself. Also, the marker may be more easily detected due to the nature of the marker itself; for example, using the methods described herein, antibodies may be employed in an immune-based detection system for a protein marker, or marker-specific radiolabeled probes may be used to detect a mRNA marker. Furthermore, the use of a pharmacodynamic marker may offer mechanism-based prediction of risk due to drug treatment beyond the range of possible direct observations. Examples of the use of pharmacodynamic markers in the art include: Matsuda *et al.* US 6,033,862; Hattis *et al.* (1991) *Env. Health Perspect.* 90: 229-238; Schentag (1999) *Am. J. Health-Syst. Pharm.* 56 Suppl. 3: S21-S24; and Nicolau (1999) *Am. J. Health-Syst. Pharm.* 56 Suppl. 3: S16-S20.

The markers of the invention are also useful as pharmacogenomic markers. As used herein, a "pharmacogenomic marker" is an objective biochemical marker which correlates with a specific clinical drug response or susceptibility in a subject (see, e.g., McLeod *et al.* (1999) *Eur. J. Cancer* 35(12): 1650-1652). The presence or quantity of the pharmacogenomic marker is related to the predicted response of the subject to a specific drug or class of drugs prior to administration of the drug. By assessing the presence or quantity of one or more pharmacogenomic markers in a subject, a drug therapy which is most appropriate for the subject, or which is predicted to have a greater degree of success, may be selected. For example, based on the presence or quantity of RNA or protein for specific tumor markers in a subject, a drug or course of treatment may be selected that is optimized for the treatment of the specific tumor likely to be present in the subject. Similarly, the presence or absence of a specific sequence mutation in marker DNA may correlate with drug response. The use of pharmacogenomic markers therefore permits the application of the most appropriate treatment for each subject without having to administer the therapy.

VI. Experimental Protocol

A. Subtracted Libraries

Subtracted libraries are generated using a PCR based method that allows the isolation of clones expressed at higher levels in one population of mRNA (tester) compared to another population (driver). Both tester and driver mRNA populations are converted into cDNA by reverse transcription, and then PCR amplified using the SMART PCR kit from Clontech. Tester and driver cDNAs are then hybridized using the PCR-Select cDNA subtraction kit from Clontech. This technique results in both subtraction and normalization, which is an equalization of copy number of low-abundance and high-abundance sequences. After generation of the subtractive libraries, a group of 96 or more clones from each library is tested to confirm differential expression by reverse Southern hybridization.

To create the subtracted libraries, a first group of regular cDNA libraries was constructed. Library johOa was constructed from a pool of 5 normal ovarian epithelial cell cultures. Library johOb was constructed from a pool of 5 ascites short cultured samples from ovarian cancer patients. Library johOc was constructed from a pool of 6 serous late stage (III/IV) tumor samples. Three subtracted libraries were generated from tumor samples. Library johOd was a subtracted ascites library, where the tester was johOb, and the driver was johOa. The johOe and the johOf library were both subtracted stage III/IV serous tumor libraries. The tester for both of these libraries was johOc, and the driver was a pooled RNA from normal tissues. The tissues used for this driver pool were: kidney, small intestine, prostate, lung, heart, muscle, spleen, pancreas, liver, and lymphocyte. Library cMhOg was the same as the johOc and johOf libraries, with the exception that normal ovary was added to the driver. cMhOh, i, j, and k are all stage I/II subtracted libraries made from pooled tumor RNAs of different histological types (h=serous, I=endometrioid, j=clear cell, k=mucinous). The driver was the same for these 4 libraries. It consisted of normal ovarian epithelial RNA and PBML RNA. Of the markers listed in Table 1, SEQ ID NOS: 1-129, 916-1029, 1566-1571 and 1607-1865 were identified in library johOa. Markers identified in johOb include SEQ ID NOS: 130-177, 1030-1081, 1572-1574, and 1866-1974. Markers identified in johOc include SEQ ID NOS: 178-269, 1082-1120, 1575-1577, and 1975-2060. Markers identified in johOd include SEQ ID NOS: 270-370, 1121-1304, 1578-1592, and 2061-2244. Markers

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identified in johOe include SEQ ID NOS: 371-611, 1305-1416, 1593-1596 and 2245-2487. Markers identified in johOf include SEQ ID NOS: 612-915, 1417-1565, 1597-1606, and 2488-2871. Of the markers listed in Table 1A, SEQ ID NOS: 2872-2976, 3817-3898, 4438-4443 and 4474-4675 were identified in library cMhOg. Markers
5 identified in cMhOh include SEQ ID NOS: 2977-3376, 3899-4072, 4444-4455, and 4676-5303. Markers identified in cMhOi include SEQ ID NOS: 3377-3495, 4073-4158, 4456-4460, and 5304-5637. Markers identified in cMhOj include SEQ ID NOS: 3496-3742, 4195-4390, 4461-4468, and 5638-6197. Markers identified in cMhOk include SEQ ID NOS: 3743-3816, 4391-4437, 4469-4473 and 6198-6398.

10

VII. Summary Of The Data Provided In The Tables

Tables 1, 1A, 2 and 3 are being filed concurrently herewith on a compact disc in lieu of paper copies. The compact disc submitted is formatted from an IBM-PC and is compatible with MS-Windows. The disc contains the following four (4) files:

15 Table1.text, containing 1,223kb, Table1A.text, containing 1,582kb, Table2.text, containing 10,600kb, and Table3.text, containing 568kb. The material on the compact disc, namely Tables 1, 1A, 2 and 3, is expressly incorporated by reference.

Tables 1 and 1A show 6398 novel nucleotide sequences. These 6398 novel sequences were determined to be novel through various BLAST searches of available
20 databases. Of these novel markers, SEQ ID NOS: 1566 – 1606 and 4438-4473 are preferred, SEQ ID NOS: 916-1565 and 3817-4437 are more preferred, and SEQ ID NOS: 1 – 915 and 2872-3816 are most preferred.

The sequences of Tables 1 and 1A were re-interpreted and vector sequences removed and those sequences are set forth in Table 2.

25 Table 3 correlates the SEQ ID NOS. from Tables 1 and 1A with those of Table 2.

The contents of all references, patents, published patent applications, and databases cited throughout this application are hereby incorporated by reference.

30 Other Embodiments

Those skilled in the art will recognize, or be able to ascertain using no more than routine experimentation, many equivalents to the specific embodiments of the invention

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described herein. Such equivalents are intended to be encompassed by the following claims.

What is claimed is:

5

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Claims

1. An isolated nucleic acid molecule comprising a nucleotide sequence of Tables 1-2, or a complement thereof.
- 5 2. A vector which contains the nucleic acid molecule of claim 1.
3. A host cell which contains the nucleic acid molecule of claim 1.
- 10 4. An isolated polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide sequence of Tables 1-2.
5. An antibody which selectively binds to a polypeptide of claim 4.
- 15 6. A method for producing a polypeptide comprising culturing the host cell of claim 3 under conditions in which the nucleic acid molecule is expressed.
7. A method for detecting the presence of a polypeptide of claim 4 in a sample comprising:
 - 20 a) contacting the sample with a compound which selectively binds to the polypeptide; and
 - b) determining whether the compound binds to the polypeptide in the sample to thereby detect the presence of a polypeptide of claim 4 in the sample.
- 25 8. A kit comprising a compound which selectively binds to the polypeptide of claim 4.

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9. A method for detecting the presence of a nucleic acid molecule of claim 1 in a sample comprising:

- a) contacting the sample with a nucleic acid probe or primer which selectively hybridizes to the nucleic acid molecule; and
- 5 b) determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample to thereby detect the presence of a nucleic acid molecule of claim 1 in the sample.

10. The method of claim 9, wherein the sample comprises mRNA molecules and is contacted with a nucleic acid probe.

11. The method of claim 9, wherein the sample is isolated from ovarian tissue.

12. The method of claim 9, wherein the sample is a tumor sample.

13. A kit comprising a compound which selectively hybridizes to a nucleic acid molecule of claim 1.

14. A method of assessing whether a patient is afflicted with ovarian cancer, the method comprising comparing:

- a) the level of expression of a marker in a patient sample, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
 - 25 b) the normal level of expression of the marker in a control non-ovarian cancer sample,
- wherein a significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with ovarian cancer.

30

15. The method of claim 14, wherein the marker corresponds to a secreted protein.

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16. The method of claim 14, wherein the marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

17. The method of claim 14, wherein the sample comprises cells obtained
5 from the patient.

18. The method of claim 17, wherein the sample is an ovarian tissue sample.

19. The method of claim 14, wherein the sample is an ovary-associated body
10 fluid.

20. The method of claim 14, wherein the level of expression of the marker in the sample is assessed by detecting the presence in the sample of a protein or protein fragment corresponding to the marker.

15

21. The method of claim 20, wherein the presence of the protein or protein fragment is detected using a reagent which specifically binds with the protein or protein fragment.

22. The method of claim 21, wherein the reagent is selected from the group consisting of an antibody, an antibody derivative, and an antibody fragment.

23. The method of claim 14, wherein the level of expression of the marker in the sample is assessed by detecting the presence in the sample of a transcribed
25 polynucleotide or portion thereof, wherein the transcribed polynucleotide comprises the marker.

24. The method of claim 23, wherein the transcribed polynucleotide is an mRNA.

30

25. The method of claim 23, wherein the transcribed polynucleotide is a cDNA.

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26. The method of claim 23, wherein the step of detecting further comprises amplifying the transcribed polynucleotide.

27. The method of claim 14, wherein the level of expression of the marker in
5 the sample is assessed by detecting the presence in the sample of a transcribed polynucleotide which anneals with the marker or anneals with a portion of a polynucleotide wherein the polynucleotide comprises the marker, under stringent hybridization conditions.

10 28. The method of claim 14, wherein the level of expression of the marker in the sample differs from the normal level of expression of the marker in a patient not afflicted with ovarian cancer by a factor of at least about 2.

15 29. The method of claim 14, wherein the level of expression of the marker in the sample differs from the normal level of expression of the marker in a patient not afflicted with ovarian cancer by a factor of at least about 5.

30. The method of claim 14, comprising comparing:
a) the level of expression in the sample of each of a plurality of
20 markers independently selected from the markers listed in Tables 1-2, and
b) the normal level of expression of each of the plurality of markers in samples of the same type obtained from control humans not afflicted with ovarian cancer,
wherein the level of expression of more than one of the markers is significantly
25 altered, relative to the corresponding normal levels of expression of the markers, is an indication that the patient is afflicted with ovarian cancer.

31. The method of claim 30, wherein the level of expression of each of the markers is significantly altered, relative to the corresponding normal levels of
30 expression of the markers, is an indication that the patient is afflicted with ovarian cancer.

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32. The method of claim 30, wherein the plurality comprises at least three of the markers.

33. The method of claim 30, wherein the plurality comprises at least five of the markers.

34. A method for monitoring the progression of ovarian cancer in a patient, the method comprising:

- a) detecting in a patient sample at a first point in time, the expression of a marker, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2;
- b) repeating step a) at a subsequent point in time; and
- c) comparing the level of expression detected in steps a) and b), and therefrom monitoring the progression of ovarian cancer.

35. The method of claim 34, wherein the marker corresponds to a secreted protein.

36. The method of claim 34, wherein the marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

37. The method of claim 34, wherein the sample comprises cells obtained from the patient.

38. The method of claim 37, wherein the patient sample is an ovarian tissue sample.

39. The method of claim 34, wherein between the first point in time and the subsequent point in time, the patient has undergone surgery to remove ovarian tissue.

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40. A method of assessing the efficacy of a test compound for inhibiting ovarian cancer in a patient, the method comprising comparing:

- 5 a) expression of a marker in a first sample obtained from the patient and exposed to the test compound, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
- b) expression of the marker in a second sample obtained from the patient, wherein the sample is not exposed to the test compound, wherein a significantly lower level of expression of the marker in the first sample, relative to the second sample, is an indication that the test compound is
- 10 efficacious for inhibiting ovarian cancer in the patient.

41. The method of claim 40, wherein the first and second samples are portions of a single sample obtained from the patient.

- 15 42. The method of claim 40, wherein the first and second samples are portions of pooled samples obtained from the patient.

43. A method of assessing the efficacy of a therapy for inhibiting ovarian cancer in a patient, the method comprising comparing:

- 20 a) expression of a marker in the first sample obtained from the patient prior to providing at least a portion of the therapy to the patient, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
- b) expression of the marker in a second sample obtained from the
- 25 patient following provision of the portion of the therapy, wherein a significantly lower level of expression of the marker in the second sample, relative to the first sample, is an indication that the therapy is efficacious for inhibiting ovarian cancer in the patient.

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44. A method of selecting a composition for inhibiting ovarian cancer in a patient, the method comprising:

- a) obtaining a sample comprising cancer cells from the patient;
- b) separately exposing aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2; and
- d) selecting one of the test compositions which alters the level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

45. A method of inhibiting ovarian cancer in a patient, the method comprising:

- a) obtaining a sample comprising cancer cells from the patient;
- b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2; and
- d) administering to the patient at least one of the test compositions which alters the level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

46. A kit for assessing whether a patient is afflicted with ovarian cancer, the kit comprising reagents for assessing expression of a marker selected from the group consisting of the markers listed in Tables 1-2.

47. A kit for assessing the presence of ovarian cancer cells, the kit comprising a nucleic acid probe wherein the probe specifically binds with a transcribed polynucleotide corresponding to a marker selected from the group consisting of the markers listed in Tables 1-2.

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48. A kit for assessing the suitability of each of a plurality of compounds for inhibiting ovarian cancer in a patient, the kit comprising:

- a) the plurality of compounds; and
- b) a reagent for assessing expression of a marker selected from the group consisting of the markers listed in Tables 1-2.

49. A method of making an isolated hybridoma which produces an antibody useful for assessing whether a patient is afflicted with ovarian cancer, the method comprising:

- isolating a protein or protein fragment corresponding to a marker selected from the group consisting of the markers listed in Tables 1-2;
- immunizing a mammal using the isolated protein or protein fragment;
- isolating splenocytes from the immunized mammal;
- fusing the isolated splenocytes with an immortalized cell line to form hybridomas; and
- screening individual hybridomas for production of an antibody which specifically binds with the protein or protein fragment to isolate the hybridoma.

50. An antibody produced by a hybridoma made by the method of claim 42.

51. A kit for assessing the presence of human ovarian cancer cells, the kit comprising an antibody, wherein the antibody specifically binds with a protein or protein fragment corresponding to a marker selected from the group consisting of the markers listed in Tables 1-2.

52. A method of assessing the ovarian cell carcinogenic potential of a test compound, the method comprising:

- a) maintaining separate aliquots of ovarian cells in the presence and absence of the test compound; and
- b) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2,

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wherein a significantly altered level of expression of the marker in the aliquot maintained in the presence of the test compound, relative to the aliquot maintained in the absence of the test compound, is an indication that the test compound possesses human ovarian cell carcinogenic potential.

5

53. A kit for assessing the ovarian cell carcinogenic potential of a test compound, the kit comprising ovarian cells and a reagent for assessing expression of a marker, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2.

10

54. A method of inhibiting ovarian cancer in a patient at risk for developing ovarian cancer, the method comprising inhibiting expression of a gene corresponding to a marker selected from the markers listed in Tables 1-2.

15

55. A method of treating a patient afflicted with ovarian cancer, the method comprising providing to cells of the patient an antisense oligonucleotide complementary to a polynucleotide corresponding to a marker selected from the markers listed in Tables 1-2.

20

56. A method of inhibiting ovarian cancer in a patient at risk for developing ovarian cancer, the method comprising decreasing expression of a gene corresponding to a marker selected from the markers listed in Tables 1-2.

57. A method for determining whether ovarian cancer has metastasized in a patient, the method comprising comparing:

25

a) the level of expression of a marker in a patient sample, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and

b) the normal level or non-metastatic level of expression of the marker in a control sample

30

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wherein a significant difference between the level of expression in the patient sample and the normal level or non-metastatic level is an indication that the ovarian cancer has metastasized.

5 58. The method of claim 57, wherein the marker corresponds to a secreted protein.

 59. The method of claim 57, wherein the marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

10

 60. The method of claim 57, wherein the sample comprises cells obtained from the patient.

 61. The method of claim 60, wherein the patient sample is an ovarian tissue
15 sample.

 62. A method for assessing the aggressiveness or indolence of ovarian cancer comprising comparing:

- 20 a) the level of expression of a marker in a sample, wherein at least one marker is selected from the markers of Tables 1-2, and
- b) the normal level of expression of the marker in a control sample, wherein a significant difference between the level of expression in the sample and the normal level is an indication that the cancer is aggressive or indolent.

25 63. The method of claim 62, wherein the marker corresponds to a secreted protein.

 64. The method of claim 62, wherein marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

30

 65. The method of claim 62, wherein the sample comprises cells obtained from the patient.

66. The method of claim 65, wherein the patient sample is an ovarian tissue sample.

Sequence 1

Sequence 2

Sequence 3

Sequence 4

Sequence 5

Sequence 6

CGTCCGCGTCTCGCTGCGGAAAGTTGGGGCAACCTGTTGCTAGTCTGGTCTGTTGGTGAC
AGCGAGGCTTCCGCGCTCGCTGCTGGTGAGCAGCCCCGGCGTGCCCCGCGGGCTGGAAGA
GGCGGGCGGCGTGATGCGGCCCGTGGACGCGCCCCGCGCGCGGCCCGCGAGAACCTGGCCTC
CCTGGAGCGCGAGCGCGCCCCGGGCGCACTGGCGGGCCCGCAGGAAGCTGCTGGAGATCCA

TABLE 1

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GAGCCTGCTCGACGCCATCAAGAGTGAGGTGGAGGCAGAGGAGCGGGGCGCCCGGGCCCC
AGCACCCCGCCCCGCGTGCGGAGGCTGAGGAGNCGGGTGGCTCGGCTGTGCGCCGAAGC
AGAGAGGAAGGCTGCGGAAGCGGCGCGGATGGGGCAGGCGGGATCGTGGGAGCTGCACNN
ACCGGATCGCCGGCTTGCGAGTGCTGCTGAGCCGGCGAGGCCNCGGGTCTGGAAGCGGA
ANCGCGCGGG

Sequence 7

NTTCGGGAGTGCACCACGCGTCCGCGCGCTGGAGGAGTGGAGCAAGCACCCGGCCCGGCC
CTGGGGGCTGACAGTCGGCAAAGTTTGGCCCGAAGAGGAAGTGGTCTCAAACCCCGCAG
GTGGCGACCAGGCCAGACCAGGGGCGCTCGCTGCCTGCGGGCGGGCTGTAGGCGAGGGCG
CGCCCCAGTGCCGAGACCCGGGGCTTCAGGAGCCGGCCCGGAGAGAAGAGTGCGGCGG
CGGACGGAGAAAACTCCAAAGTTGGCGAAAGGCACCGCCCTACTCCCGGGCTTGCC
GCCGCTCCCCGCCCCAGCCCTGGCATCCAGAGTACGGGTGAGCCCGGGCCATGGAGC
CCCCCTGGGGAAGGCGGCACCAGGGGAGCCTTGGGCGCCNCGGGCTTCGGCCGCGACCCC
ATTTGGGGTAGACCACAAGAAAGCTTCGGGACCTTTTCGGCACCTTTGGACAGCCAAGAA
TGGCTGNTGGGCACCCTTTCTTCT

Sequence 8

CCCCGCGTCCGGAGCACGCAAAGGGAATAAATTGTAATTAGGTGGTGGGTGGCTAAAAAT
GACAATGCAAAGGTGTTGGATTAAAAAAAATCTGGTAGTAGAGGGAAATTATGGAGGA
TTTTTAAAAAGGTTAATGATAATATCCATCTACTTATGTAACCTTTTTTGGAGATACCTG
ATAATAGTGTAGAGTGCATTGGAGAGGAAAAGTAGGAGTTGTAAGACCATTTTGGATAA
ACTTTGAAGCAAGGGATAATGGCCTCAACCAAGGTAGTGGTGCTGAAGATTGTTTACATA
AATAAGCAGATACAAATAGAAGGGATTTTTCAAGTGGCATTGTAACCTGCACTTTTCAAAG
GTTATTTGCCAAAAATCAAATTAACGGTATCTTCAAAAATCATGTTTGATGGATGTATCA
TCAAGGGCTTTCTTAAATTTTGTGAAAGCCAAGGAA

Sequence 9

CGCCTTCCCGGGAAGTTTGGAGGGCCCCGNAGGGGAAGCCCCCGCGNCTTCNGGGGGCCN
GNCGGGCTTGGAAGGCAANCCCCACCCCAAGTTTCCCCGCCNANGGANTNCAATGAANCT
TGACCGGGGCCCCCGGAACCCNCGCTNGNCTTNTTNGGGGGTGGTTCCTTGGGTCCG
GTGGGGGGGAACCCCAAGTGCTTTTCAAGGCCCGCGCGGGCCCGGGGCCCGGAAAGG
GCCTTTCAAGTTCCTTNCCTTTCCCCGGNTTGAAAGAAGGNAAAAGGCCGGAANGGAAAC
CNGGGNAAAACCCGCGNGGGNNGGGCGGCCTTCNNCCGCCNNGGGCGCCCCCTTGCCNNGGG
GGGGGNAAAGGGGNCAAAGTTTTCCNNGGGGCCCGGGGCCCGCGCNGNCCCTTTNAAN
TCAAGGGGGCGGGNCCGNCCTTTCCCAANNCGGCCAAGTTCCTTCAAAGGGGCCCCCC
CGGGNTTTCGGCCCCGNCNGGNCNGNAACCTTGGGGAAGGAAAAATTCAAAAAGTTTT
GTTGGCCCGGTTTCCGGGTNGGAATTGCCCCCNAAAATTGNAAGCCGGGGGGGGGNN
NCCTTGGGGGCCCTTCTTTGCCCCCNTTTAAAGGGAANGGCNAAAACCTTTNCCCAAC
CGNCCAANNCCCCCGTNAAAAAANGGGCCGGCCTTNNTTTGNCCGGGGCCCNAAANAA
GGGCCTTTTCGNTTTTTTCGGGTTTTTTCCCCCGGGCCGGGCGGGCGGNNCNTTTTTT
TTTTTGGCTTTTAAAGGGGG

Sequence 10

NCGCGTCCGCGCATTGTGGCCAAGTGCCATGAGGAGCAGCTGGATCATTCTGTCCAGTC
ATATATTAAGTTCGTGTTCAAGACCAGGGCATGCAAGGAGAGGACTGTACATGAGGAAC
GNCTAAAAATGTGACTGGTCTTTGAAATCAATGACTCAACAACAGTAAAGCATGTCTT
AAAGCATTCTGGTTCCTTCTTGAATTATCCTAAAATCGATGGCACAGCACTTGATTGA
CACAAATAAAATCCAGCTTCCCCGGCCTCAGAGATTTCTGAATCTTACCAAATGAATT
GGACAATCTTGNCATGGTCCTATCCGACCATGTGATTTGGGAAATACAAGGATGCACTTG
AAGAAACANGAAGGGCAAACCACAGCGTTGCCAGATTTCTAAGCGCTGCTTTAC

Sequence 11

CGCCNCGCGTCCGGCTTCCTAGAAGAGCACAGTCCCTTAAAGCACCTCTATTGCTACAA
TTAAAAGTCTAGCAGATTGTAACCTTGTACACAAGTTCTAGAGATGCTTTTGGCTATG
CTACACTGAAAAGACTACAGCAACAAAGAATGCATCCATCCTTATCTCACTCTGAAGCTT

TABLE 1
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TGGCATCTCCAGCAAAAGATGTGCTATTTACTGATACCATCACCATGAAGGCCAACAGTT
TTGAGTCCAGATTAACACCAAGCAGGTTTCATGAAAGCCTTAAGTTATGCATCATTAGATA
AAGAAGATTTATTGAGTCCTATTAATCAAAATACCCTGCAACCGATCTTCCTCAGTGCGG
GCCATGGNGTCCAGTGCCACATNGGGGGGGTCAGAATGATTACATTGGGCTTGCTCTCCC
GGNGGATATAAATGATATATTTTCANGGTAAGGGTATTTCTTATTTTTAGACAAAAACAT
CCCCNCATGATGATCCAGGNGCCAGAGCATTTGCCCTGAATGCAGGAGGGCTTTCATNTG
GNACTGGGNGGGCTTTGNAAAAATTTTTT

Sequence 12

TTCGGGAGTCGACCACGCGTCCGCCAAGTCCTGCGATGATGGACTCAACACCTTCCGCGA
CGAGGGCCGGGTTCTGCGGCGCCTGCCAAACCGCATACCCAGCCTGCGGATGCTCCGGAG
CTTCTTCACCGACGGGTCTTGATAGCTGGGGCACCTCTGAAGATGCTGACGCTCCTTC
TAAGCGACACTCAACCTCTGACCTCTCAGATGCGACCTTCAGCGATATCAGGAGAGAAGG
CTGGTTGTATTATAAGCAGATTCTACCAAGAAGGGGAAGGCTGAGGACCGGGATGACAT
GCTGGGCTGGATCAGAGCGATCCGGGAGAACAGCAGGGCCGAGGGCGAGGACCCCCGGCT
GTGCCAACCAAGCTCTTGATCAGCAAGAAGCTTAATGATTATCGCAAAGTGAGCCATAGC
TCTGGGCCCAAAGCTTGATTTCTTCCC

Sequence 13

GTATTAATGTTCTCAGGCATGAAGCAGAATTTTACGGGATCACTCCATTAGTAAGAAGGC
TTCTCTTATGTGAAGAATTGGAGCGTTCCTCTTGTTGGCAGTGTCTTTTTTCATGGTTACT
TGCCCCCACCAGGTATTCCTAGTNCGTAAATAAACACACAGTCAGATCTGCTGATTCT
AGGAATGGTCTAAATTTCTACAGAAGGTGAAGCCCGGGGAAATGGTACACAGCCTGTTCTC
TCTGGAACGGGAGAGAAGAACTGTTAGGCTAGGATTTCTGTGGATCCACNAAAGGTGCTA
ATAGTAGCTGGCCATCACAACCTGGATTGTAGCTGCATATGCCCATTTTGCTGTGTGTAC
AGAATCAAAGAATNTTNANGATGGCAGCAAGTGNTTACGAGCCCATATTTGGATTGGACT
ATCGAACGAGTAGNTTTAAATGCAAAGGTGGATGGAGGGCCACATGGAGACAAAAGACAA
AATG

Sequence 14

GCCNCGCGTCCGAAAAAATTAAGAGAAGGCCTGGCGGCCGGTCTGAAGTCATCTATAATT
ATGTACAACGCCCTTCATCCAGATGTCATGGGAAAAGGAAGAAGGGAAGAGTCGCCATG
TGGATTTCTAGTGTGTTTGAAGCAAATCCCTCACGAATCTGGTAGCTGCTGGAGATGATG
CTTGAGGAGACCAGGAGATTAATGCTACACCCACCCCAAGTGATGAACCTGACCGGC
TAAATGCCCCAGCTTTCTCAGATGGCTTCTACAGACTTTTCAGGATTAGGGCCAGCTGTGGG
TCTACTCCTTGTTGGAGCCCATCTCACCTGGGATGCCTGCAGCCAGCCCTCCCTCGTGAT
TTGTCTCACCTTGAGTAGGAGACATGCTTCTCCCTAACCTTTTCTTTTCTGCCATAATT
AACATATGTCCTTTTTCAGTAAGTCCATGCCTCTGGCAGGGGATGAAAGAAGTACTCACTG
GGTAATTAGCTACCATCTTTCAGCACCCCTGGTAACCTTGAAAAATTT

Sequence 15

TCGGGAGTCGACCCCGCGTCCGCCGAGCGGGGCGGCGCGGCTGGCGGGGCGGCGGCGG
CTGAAGCGAGAGCGCGACGCGACCGCGGGCTTCCCGAGCTGCGCCTGGCCGNCCAG
CGCCGCGGNCCGCCCCGAGGCCTGGAGGGGTCCGGGCGCGCGTCCATGGTCGCGGCGTCT
GAGGCGGGGGACGCGCCCCGCGCCCCCGGCCCTCTNCGCCTCCTCCGCGGGGCGGGCG
GCCTCCTCCGCGCCTNCCCGCGCCCCGCGCGCNTCGCCGCGCCTCCCTCCCTCCTTC
CCTGCGGCTCCCCCGGCTTTCGGAGCCCGGGGGCGGCCTGTGGCGCGCGGAGCCCGCGCC
GGACTGCGCCTNTTGGACCTTGAGGGGAAACATGCGTTTGCCNTGGATCGTTTGAAATT
CTGAGTTTGGGATCCCCGNCCGCGCCGNTGGCTTTTTCGCCGCGGGTTTTTCTTTTT
TCCTTTTGCTTTTTTTCTTCTT

Sequence 16

NGCCCCGCGTCCGTTTTAATTATTTTGTNGAGCCTGCANAGTAANGTTNTTAAAAATA
TAACGTTTCATACGATTTTAATTAACCTTTGAAAGTTCATATGCATCAGAAAAATTTATGAA
AATTTGAATGAAAAAATTTTCATCTATTTATTTTCTAATTTTAATGGCAAATTTACACT
ATTATGGCTGATAATTCTGTGAACCTTACCTTCTTGTTGACTGATTCTTTTTCCCTTAATC

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CCAGCTTTAAGGAGATAGGTGAAGTTATTGTACAAAGTTAAGTGATACCATAAAGTATAT
ATTATAAAGTCATACATGGCTTTTGGACAGTNTTATATTTTCAGTTGCAGTGCTGCATTCC
ATTAATTTTCATAAAATGCTAGGGAAAATGTGTTTGATAAAATTTTNTGCAGTGAGAAAT
GACAGACTGAGTGCTGACAATTTAAGCCACATATGAAAGTATGCAAGTAAAGANTTCAG
GTCCTTAATGTCATCTATATCATGGTATAAAAAG

Sequence 17

CCACGCGTCCGGACGAGACGAGCCCACTAGTGTCCTCCGAGCGGGCCCAACCCCGGACT
ACACCTTCCCGTCGGGCTCGGGCGCTCACTTTCCGCAGGTGCCCGGGGCGCGGTCCGAG
TGGCTGGCGGCGGGCCGGCTCGGGCCCTNTCCGCCGGGCTCGCCGGGCCACGACCGCTGA
GCGGCAGCCACTGTTGGATCGGGCCCCGGGGCGCGNGGCCAGGGCCAGACCCAAACCGT
GGCGGCGCAGGCCAGGCTCTGGCCGTTCCANGCCGNGGCGGCAGTCCACGCCGATCAGGC
CCACCGNGAGCGGAACGAG

Sequence 18

GGGAGTCGACCNCGCGTCCGGGCGGTGGGTGTCCGCTTCTCTCTGCTCTTCGACTGCACC
GCACTCGCGCGTGACCCTGACTCCCCCTAGTCAGCTCAGCGGTGCTGCCATGGCGTGGCG
GCGGCGCGAAGCCGGCGTCCGGGCTCGCGGCGTGTTGGCTCTGGCGTTGCTCGCCCTGGC
CCTGTGCGTGCCCGGGGCCCCGGGGCCGGGCTCTCGAGTGTTCTCGGCCGTGGTAAACAT
CGAGTACGTGGACCCGACACCAACCTGACGGTGTGGAGCGTCTCGGAGAGTGGCCGCTT
CGGCGACAGCTCGCCCAAGGAGGGCGCGCATGGCTTGGTGGGGCGTCCCGTGGGCGCCCG
GCGGAGACCTCGAGGGCTGCGCGCCCCGACACGCGCTTTTTCTGTCGCCGAGCCCCGCGGC
CGAGGGGCCCCGCGCCCTTGGGTGCGCCCTGGTGGCTCGTGGGGGCTTGACCTTTAAGGAC
AAGGTGCTTGTGGCGGGCGCCGAGG

Sequence 19

NATGTNGNNCNAAAAAGGCCNGCNTTANAGGCCAGGAAACNCGTAAAAAGGGCNCGCGTT
GCTGTGCGTCTTTTCCATAGGCTCGCGNCCCCCTGACCNAGTCATCATCAAAAATCCGA
CNGCTCAAGTCATGAGGTTGGCCGAAAACCTCCGACAGGGACTTNTAANAGNATACCCANG
GGCGNTTCCCCCTGGGAAGGCTCCCTTCGTGGCGCNTCTCNNTGTTTCCAGACCCCTGC
CCGCTTTACNCGGNATTACCTNCTCCCCGCCNTTTCTTCCCTTTCGNGGAAAGCGGT
NGGGCGCCTTCTCNTCAATTAGGCTTACCGCCTGNTAANGGTATTCTCAAGTTNCGGNT
GTANGGGTGCCGTTTTTCGCTTCCAAAGNCTGGGGCCTTNTGTGCCACCGGAAACCCCCC

Sequence 20

TTCGGGAGTCGACCNCGCGTCCGCCTGGAGCCGCCAGAGTTTCCGCACCCGGGAGGGAGA
TGCGGCCGGGGCTCAGGCTCCTTGCAATTGTAATTTAGATTGAGAAGTGGTTTATCCTT
TGACTGGAAAAGAAAAGTAGCTGCAGTATCCCCCAGCACTTGCTGAGAGCATGCCGTAT
GCCAGGCTGTGAGGCTCGAGAGACAAGCAGTGGAAGAGTTGCGGCCTGTTTCATCTCTGG
ATTGTAAATCTGAGCCTCCTTCTGGCCCTGGAAGGGGACAGCATCACGATGGAATGATT
CCTAACCAGCATAATGCTGGAGCCGGGAGCCACCAACCTGCAGTTTTCAGAATGGCCGTG
TTGGACACTGATTTGGATCACATTCTCCATCTTCTGTTCTTCTCCTCATTCTGGGCTAAG
TTAGTAGTGGGATCGGTTGCCATTGTGTGTTTTGCACGCAGCTATGATGGAGACTTTGTC
TTTGATGACTCAGAAGCTATTGTAAACAATAAGG

Sequence 21

CGACCACGCGTCCGGCAGCCGCGGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGGACCC
AGCGGGCCAGGTGGGGACGGCGCGGAGCGGGTGCGGGAGATGCCGTGCGGGACTGGGGCC
ACCTGAGCCGCCCGCCTCGTCCCCGCCTTCTGTGGGAAGGATGTGCGCGCGGATGGCCGG
TCGCACAACAGCGGCCCTCGGGGGCCCTACGGCCCTGGCTCTGCCTCCTGGTGGCCCT
CGCCCTGGACGTGCTGAGAGTGGACTGTGGCCAGGCTCCCTGGACCCTGTCTACCTGCC
GGCAGCCCTGGAGCTCCTAGACGCCCTGAACACTTCCGTGTGCAGCAGGTGGGCCACTA
CCCACCTGCCAACTCCTCTCTGAGCTCCCGATCTGAGACCTTTCTGCTCCTACAGCCCTG
GCCAAGGCCAGCCACTTCTCGGGCCTTCTACCCA

Sequence 22

TABLE 1

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CGCGTCCGCCCGGTGCCTCCGCCCATGGAACGCGCGGAGTGGCGCCGCCGCGGCTACGCG
CCGCTGCTCTATCTGCAGTCACACTGCGACGTGCCAGCGGACCGGGACCGCTACGTGCGC
GAGCTCATGCGCCACATCCCGGTAGACTCCTACGGGAAATGCCTGCAGAATCGGGAGCTG
CCTACCGCGCGGCTACAGGACACAGCCACGGCCACCACCGAGGATCCAGAGCTCTTGGCT
TTCTTGTCGCCGCTATAAGTTCCACTTGGCCCTGGAAAATGCCATCTGTAACGACTACATG
ACAGAAAACTGTGGCGTCCCATGCACCTGGGCCGCTGTGCCCGTGTACCGCGGTTCTCC
CTCTGTGAGGGACTGGATGCCGAACAATCACTCCGTATCCTGATTGATGATTTTGAGTC
TCCTCAGAAGCTGGCAGAGTTTATTGACTTTCTGGACAAGAATGATGAGGAGTATATGAA
ATACCTGGCATAACAAGCAACCT

Sequence 23

CGCGTCCGGCTGGGCGAATNAGGGATTCCGGTTCACAATGGATGCTGATAAAGAGAAAAGA
TTTGAGAAAATTTCTTAAAAATGTGGATGAAATCTCCAATTTAATTCAGGAGATGAATTC
TGATGACCCAGTTGTGCAACAGAAAAGCTGTCTGGAGACAGAAAAGAGACTACTGCTTAT
GGAGGAAGACCAGGAGGAGGATGAATGCAGGACCACCTTGAACAAGACTATGATCAGTCC
TCCACAAACTGCTCTGAAGAGTGCAGAAGAAATAAACTCAGAGGCCTTCTTGGCATCTGT
GGAGAAGGATGCAAAGGAACGAGCCAAGAGAAGAAGGGAAAACAAAGTCTTGGCGGATGC
CCTAAAAGAAAAAGGGAATGAAGCATTGCTGAAGGCAATTATGAAACAGCTATCCTGCG
CTACAGTGAGGGGTTTGGAGAAGCTGAAGGACATGAAAGTGCTGTACACCAACCGAGCCC
AGGCTTATATGAAACTTGAGGA

Sequence 24

GGGAGTCGACCNCGCGTCCGCTCCCTCTGAGTTGCGCTGGGCTTGGCTGCTGCACCATGA
CCCTGGAGGCGATCCGCTACTCGCGGGGCTCCCTGCAGATCCTAGACCAGCTGCTGCTGC
CCAAGCAGAGCCGCTACGAGGCGGTGGGCTCGGTGCACCAGGCCTGGGAGGCCATCCGCG
CCATGAAGGTGCGGGGCGCCCCGGCCATAGCCCTGGTGGGCTGTCTCAGCCTCGCCGTGG
AGCTGCAGGCGGGCGCCGGGGGACCGGGACTCGCCGCGCTCGTGGCCTTCGTGCGCGACA
AGCTGAGCTTCCTCGTCACCGCCCGGGCCACCGCTGTCAACATGGCCCGCGCCGCGCGG
ACCTGGCTTGATGTTGCAGCCCGGGAGGCCGAACGGGAGGGGCGCTACGGAAGAGGCCGG
TCCGGGAGAGAGTGATCTGCTGCACCGAGGACATGCTGGAGAAAGACCTCAGAGACAACC
GAAGCATTG

Sequence 25

GGAGTCGACCNCGCGTCCGGGATAACGAAGCTGCTACCATGATGATGGCTGATCTCATGT
TCAGAAAAACAAGACTATGAACAAGCAGTGTTTCATTTACAGCAGCTTTTAGAACGTAAGC
CAGACTCCTCGAGTTCAGGGATCACACCATATTCCCAATATCAGACAAAATGCCACACAC
ATGGATGTGGCAACATAGATGTTTATTGGTTGAATGGATCAGTGAATGACTGTAAAACAC
CAAGTCAATTA AAAACACAGCAGGAGAATCGCTTGAACCTGGGAGGTGGAGGTTGCCGTG
AGCCAAGATCACACCACTGCACTCCAGCCTCGGTGACAGAGTGAGACTTGGTCTCAAAAA
CAACCACAAAATTTTAAATAATTATATGACATTATCTCGTTTGATTGATCTCCTAAGAAG
ATGTGGAAAACCTCGA

Sequence 26

ACCGTCCGGGGCCATCCAGGAGAGCCTCCTACCAGCACAGAAGGCCTGTGCCCCAGCGCC
CTGAGCGAGACAAGCCGTTTTGATAATGACTTGCAGCTAGCCATGGAGCTCTTGCCAAA
GAGCTGGAGGAATGGGAGCTCCGGCTCCAGGAGGAAGAGGCTGAGCTCCAGCAAGTCTTA
CAGCTGTCACTCACTGACAAATAGACCTTTAGCCTGTGAGCCTCTGCACAAAGCAGAGG
CTGTGGGCTGTACAGATGCTGTGTCAACCAGGGCCCTAGGGCTAAGGGCCTGCACCTTG
CGTGATGCAGCAGGCAACAACCTGCCCTTCTTTATGCAGAGGTGCAGAACCAGGGACTC
CTGGGCCCATCCAGGCTGCTTCCTTGGGGTGG

Sequence 27

NCCNCGCGTCCGGCCGGCGATGCCGCGCCCCGGGCGGGCTGTAGCGGGGCGCGGCTG
GACGTGTGCGCCGGGCAGGCGGGACATGGAGGTGGTGGACGAGACGGAGGCGCTGCAGCG
CTTCTTCGAAGGCCACGACATCAACGGTGCCCTGGAGCCCTCCAACATAGACACCAGCAT
CCTGGAGGAGTACATCAGCAAGGAGGATGCCTCCGACCTCACACTGCCGGA CTCTCCCC

TABLE 1
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AGACTCGGGCTCCGAGGCCTACTCCCCCAGCAGGTGAATGAGCCCCACCTNCTGCGCAC
GATAACCCCTGAGACACTGTGCCACGTGGGGAGTGCCCTTC

Sequence 28

CGCGTCCGCNAGGGAGGGCCGAGCGAGGCGCAGGCAACCGGGCAGCAGGCATGATGCCCT
CGCCTAGTGACTCCAGCCGCTCGCTGACCAGCCGGCCAGCACCAGGGGCCCTTACCCACC
TNCGCCNACCCGACCCTGGCTGCAGGCCCTGCTTACGCTGGGGCTGGTCCAAGTGCTCC
TGGGCATACTGGTGGTCACCTTCAGCATGGTGGCCTCTCCGTCACCACCACCGAGAGCA
TNAAGAGGTCCTGCCCGTCTTGGG

Sequence 29

ACGCGTCCGATTTTAGTNGCAAGGAGTCCATGTGTTCAACTCCAGCATTTCTGTGTCTC
CAGAGACACCGTATGTGAAAACAGCGCTGCGCCATCCTCCGTTAGCCACCTGAGCCCC
CGCTGAGCAGCCCAGCCAGTCAGCACAAAGGAGGACGTGAACCACGAAGCTGCCCTGAGA
CGCTCACTCACGCTGTGGGGATGTCAGAGAGCCCCATCGGACCCAAATCCACGATGCTCC
GGGCTGATGCGTCCTCGACGCCCTCCTTTCAGCAGGCTTTTGCTTCTTCTGCACCATT
CCAGCAACGGCCCTGGGCAGAGGAGAGAGAGCTCCTTCTTCTGCAGAACGCCAGTGGGTG
GAGAGCAGNCCCAAGCCCATGGGTTTCCCTGCTGG

Sequence 30

CCGGTTNCTTGTTNNGTTNATTGATTTAAAATAGAATATCAATTGAATTTAGAAAATTCTC
AAAAGCCAGTTTAAATGCTGTTTCATCTTTTAAAGGCCAAAAAAGTTTAAATCCAGAGGCAGT
CTTTCATTCTGCACTAATTTATAATTTAGATCAAAGAACTAATTATATATCTCAAATTTA
ATAATAAAAAGGTATAGTAATGAGAAATTAATTTATGGTAAATTATATAACTCAGAATGT
TAAAGTAACTTGGAAATTCCTAATCTAAGTTAAGTATCTTTTATTTCTTACTTGTCTCTG
TTTGATTTATTAAGGGAAAAGAAAATTTAAGGAGTTGCCAGTATTTCTTTGTCTATTGA
AAGTGGAATGTTTATTCACCCCTATTTATATACTTAAAAGACATTGTATTGGCCTGGTCT
CGAACTCCTGACCTCAAAGGTGGATCCACCCACCTCGGCTTCCCAAAGTGCTGGGATTA

Sequence 31

GCCGGTGATTTTGAACAATTCTGAAATATTTAGGTAAGATTAATAACATCCAATTACAA
ATATATGTTTCAATATTTTATACGTATGTCTACTTTGAAAGTTAAACCAATAGTATAGAA
AGCCTAAGAATGAACACTGATTGGACATACTCACAGAAATTAAGGGAAAAACACATATTG
TAAAATTCCTGTCAATGTTTGAGTAGAATACAGAAGTACATAGCAGTCTTCAATTTTAA
ACACAATTATGGGCTTATAACTGGACGTGACATGCATCATTATTAGAACAATATTATTT
ATTTATACTAAGTAAGGATATAAGATCACAGAAGCTTAGTGTTATAACGGAGACTTCACA
GACATTCATACTAATGTTTTCTAAGGCAAATAAGGGGCATAAACCAGAACTCATGGGTC
AGTGCCAGAGGTAAGTATAAAAAGGTTATGTATGAAAGACATTTATTTATAGGAGAATTT
CTGAGGGATTCTATGCCTTTTCAACTTA

Sequence 32

NCGTCCGGGAAACTGGTTCNGATGGTGTCTGCCAGGAGCGCCTGACACGCACCTTCACA
CGCAGCAGCCACACCTACACCCGCACGGAGCGCACGGAGATCAGCAAGACGCGGGGCGGG
GAGACAAAGCGCGAGGTGCGGGTGGAGGAGTCCACCCAGGTGCGCGGGGACCCCTTCCCT
GCTGTGTTTGGGGACTTCTGGGCCGGGAGCGCCTGGGATCCTTCGGCAGCATCACCCGG
CAGCAGGAGGGTGAGGCCAGCTCTCAGGACATGACTGCACAGGTGACCAGCCCATCGGGC
AAGGTGGAAGCCGAGAGATCGTNGAGGGCGAGGACAGCGCCTACAGCGTGCGCTTTGTG
CCCCAGGAAATGGGGCCCCATACGGTCGCTGTCAAGTACCGTGCCNGCACGTGCCCGGC
AGCCCTTTTCACTTACTGTGGGGCCGCTNNGGTNGAAAGGTGGTGCCACAAGGTGCGGG
CCCGGAGGCAC

Sequence 33

CCGCGTCCGCAGGAAATTGTTAAAAATAATTTGGGGGTGTTTATTGGGGAAGGAAACAGG
GCCTTGACAGTGGAGGACTTGAAGACATGTAATTTAAGATATAGAGTATGATTGTTGGA
AATAAGCATGGAGATCCAGAAGGAATCTTAAGAGTTTTTCTATGCAAGTGAAGATGGAA
GAAAATATGTATTTACAAAAGATAAATTACAAGTACCTTATTTGCTTTGCAAAATAACT
TATCATGTTCTTCCACTATTTTATTATATTTTAAATTTAATGAACTTATATAACATTT

TABLE 1
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ACACTAAATTTTAAATACATGGCTCAAGACAAAAAATGGGGAAAATATTTTTTAAAAAA
TCACCCCAAATCCTGGTACTCAGACATAACCACTATTCAAACCTTGGCAGAGTAATATTTT
TCCTGTCTGCATGTGTGCCACNATGTGTGCATGCATACCACAAAGTAGATGTTTTACTAT
ATCTCCTGGGTTATTATCTGCTTTTTTCCC

Sequence 34

ACGCGTCCGGGACAAGAGAAACATAAGCNGGAAAAAAGGAGGAGGAATAAACACACGCCT
GTCCATAATAAACTCGCTCTTGAAGACTCAGCGGCAGCCCTGCACCGGAGACTGACGAC
TTGCGCGGCTGTGACCTCCGCCCTGCAGCGGACCCTCGACTGCCCTGCACTGCGGCTCTG
GAGGCCCCGACTCAGTGCATGGGAAAGAAATCCTCACTATCAGAAAACAGAGGGGCAATC
TGCTGCTCTCCCTTTCCGGCCAAACACGTACCCATCAACCGGATACCTACCAAGAGGCT
TTCAGAGGAGGCGCCCAAGGTCTCCAGGCCCGCCCTCCCAATCACGCTCCGCTCAGC
CCCCCAACTTTTGGCCTCCGGGAAGTTCGAGCGTNTCTCACGCTTGGCAGGAAGTTCC
CGCCAAGGCTTTCGAAAAATCCTTTAAAAAGCAACGCTTGCCTGGGCGGGGCTTTGGTG

Sequence 35

CCCCGCGTCCGGTAGATTGCTTGTGGCTGGCAGTGAAGATGGTGGAGTTCAACTTTTTGA
TATAAGTGGGAGGGCTCCCCTCAGGCAGTTTGAAGGCCATACAAAGTAAGAGACAGTTGG
TTTCTGTGTGTTCTGGTTTTATTTTGTGTAAGCTCTTTTTTCTCTGGACTTTGGTTAA
AAAGATAGAGATCAGTTTTATGGAGATTATTTGCCTATAGGTACTATATTTCTGATTGT
TCTAAGAGTGCTTAACTTGGGTTCCGTGGTCCAGTTTCATGGGGCTTATGAATTCCTAG
AATTGTATGTGATATTTTAGGAAATACACGTTTATCTAGGGAGCTACTCTGTAGCTTTTG
GTTAACTTTAGTGGGGTCTGTGGCCAGCTGAGATTATGAATTACTGACCTGAAGACAAC
CTTACAGCTGGTAATGACAGCTCTATAGGCCTGTACTGTCTTAGAGGCTCTTATGTTGAA
GTCAAGTANGAAGGTGGATTTTCTTCTGAATTATAGTGTTTTGCCCTTAATAA

Sequence 36

CNCGCGTCCGCGGACGCGTGGGGGCGAGGGCCGCTGGGGCCGCGAAGTGGGGCGGCCGGG
TGGGCTACGAGCCGGGTCTGGGCTGAGGGGCGCGGCTTCGCGGTGGACCCAGCCCGGCA
ACGGGAAGGCGAGCTCTCCTCCACCGTCCAAAGTAACTTTGCCGCTCCTTCGCGGCGC
TCCCGAGTCTCGCCGCCGCCGGGCGCCGAGTCCGCGAAGAGCCGTCTGCGTCAGGG
CCTCCTTCCCTGCCCGGCGCGGGGCCACTGCGCCATGGACGCCACAGCACTGGAGCGGG
ACGCTGTGCAGTTCGCCGTCTGGCGGTTGAGCGCGACCACGAAGGCCGCTACTCCGAGG
CGGTGTTTTTATTACAAGGAAGCTGCACAAGCCTTAATTTATGCTGAGATGGCAGGATCAA
GCCTAGAAAATATTCAAGAAAAA

Sequence 37

GCGTCCGCGGACGCGTGGGCCGCCGCCGCCGCCGCCGCGATGTGACCTTCAGGGCCG
CCAGGACGGGATGACCNNGGAGCCTCCGCCCGCGGNGCCCGNNGGCTCGCCTCGGCCTCCC
GGGCGCTCTGACCGCGCGTTACCCGGCCCGCCATGGCCCCCTTCTCTNCCCCGGGCNC
ACGCTCGACCCTGCGCNCGTATCGCCAGCAAGTCTGCTGCCTGCATGCTGCNTGGCTCGC
GAGNNGTTGGCGCGCNTTGCNCTGNNGCCTGTTTGACGAGCNGCCGCCGAGGCCCACTG
CANGNTTANCTCGACGGTCTCCNAAGNCANACCGCNCNCCGCCGNCNCCCTTTCCAAGNNTNT
TTCNCGAGGGGANGGGCNCAAANGGCCAGGGGNCCCCACNCTNNGGGAAGAAGGGNNGGAG
TTNGNCNGATGNGNATGAGNAANCCTGTAGNCAAGANCCCGTCCCNAAAGNGNAGNNGC
AGCCCNNGGGGAAGGGTTGGTTTTCNANGNTAAACCGNAACCCCCCGGAAGTNAACCGG
NGATTTTAATTTATTTTACCCNCANANGNAAATAACCTTTNAANAACCATGGGNCATT
NNAAANCAAAAGNTAAATTNNGGGGNAACCTTAACCGNTAAACCANCCCCAAA

Sequence 38

CNCGCGTCCGGCGGGTCCCGCCGGCGGGTACCTGGGCACTGCGCCCCATCTGGACTGAAA
TGGGGACACCCCTTCGGGGGTCCCAGGCTCCTGGCCGTATTGTTCTCCTTCTCCTCGTGA
TAACTCCGCACTGGAGGTGGATTCCGTCCAAGACGCCAACGTGGCTCCGCGTAGCAATC
AGCGCTGCAATCCTGGCGGTTACCTCAGCGGCGGCGTCTCTCTGCGCCTCACACTCGC
AGCCCGCGGCCCTCCCCAACTTAGGGCGTTTACAAAAGAACTACTCCAGACGCGCTGCA

TABLE 1
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AAGGGAGGCGCATGTGCCCGAAAGCTGGCGATCAGACGGGGGGGGGCATTCTGCATGTGT
GATGTTTCTGGGGGCGGTGGGGAGTGTGTGTCGGGGTCGGGGGGCGGG

Sequence 39

NTGGTCTTTCTTCTTAAGAAGGAGATGGAGCCAATTTCTCACAGCTCGTGCCTCAGTACT
GAGGGTATGGAGGAAAAGGCAGTCAGTCAGTGTCTAAAAATGACGCACGCAAGAGACGCT
CGGGGAAGATGTAGCTGGACCTCTGAGATTTACTTTCTCAAGGTGGACAAGCTGTAGCC
ATCGGGCAATTTAAAGATCGAATTACAGGGTCCAACGATCCAGGTAATGCATCTATCACT
ATCTCGCATATGCAGCCAGCAGACAGTGGAAATTTACATCTGCGATGTTAAACACCCCCCA
GACTTTCTCGGCCAAAACCAAGGCATCCTCAACGTCAGTGTGTTAGTGAAACCTTCTAAG
CCCCTTGTAGCGTTCAAGGAAGACCAGAACTGGCCACACTATTTCCCTTTCTGTCTC
TCTGCGCTTGGAACACCTTCCCTGTGTACTACTGGCATAAACTTGAGGGAAGAGACATCG
TGCCAGTGNAAGAAAACCTTCAACCAACCACCGGGAT

Sequence 40

CACCGNCGCGCTCCTTCTGCCGCCAGGGCGAGGCTGGCACCCGGCCAGCGCGGGCAGGG
CCACGGGTGCCCGGCTGTTCCCGGTTGTGGAAGGCGCTCAAGGTGCGCGGCCCGGGGCG
CGCTACTGGGGGCGCCCTCCGCGGTGGGCAAGCGCGCCAGGGATCGGCCTGGGCANGCCG
CGGGGCGCGCAANGCTGCGCTTTCCCTACGCCCCCCTCGCTTCTCCGGCACGGCGGC
AACGGAGATTTCCCTCTCGGGGAACTACGCGGATCCTTTTCGGGGATCCTCGCCCCGCC
CAATTTCTNCGCCCCCTCCCTTTGCTGGGGCGCCTGGGCTGGCCCGCGCAGGGGA

Sequence 41

CNCGTCCGGTTCCTAACACAGACGAACTCAGCTTCCCTTGCCATGCCTCTGACTCGAGCC
AGCCTTTCTTTTATCCTCCGTTTTCTCAGATTCCTCCACACAGTCTTTTCCAGGTC
TAGATCGCTTCCCTCGCCCCAATCTTCTGAACCCCTTTTCCAGTGTCCCAAAGCTGT
CCACTCTTACGCCTCTTCCAGAAACACAGGCTACCTCCCCCAATTCCCAGTGCCACTC
TGGATTGTAATATCCCACTCAGGAGCTTCTTCTTGAATTTCCCTCCCCCACCCTCA
CCCTCCCCGGGTGCTGTGTTTTCTTCTATGAAGCAAAATTAATCATCAAAATATAGGAAC
AAAGGCCTAAGTCCCTTCTGNGCTTTATTTCTTNGGTGACTGGATCTTAGATCCTATCA
TTTAAGTAGATGATGGTT

Sequence 42

GGTGTGACCNCGCGTCCGCGCTTCTCNCCTCGGCCCGTGGAGCCGGGGCGTCCGGGCGT
AGCCCTCGCTCGCCTGGGTGAGGGGTGCGCGTGGGGGAGGCAGAAGCCATGGATCCCG
GGCAGCAGCCGCGCCTCAACCGGCCCCCCAGGGCCAAGGGCAGGCCGCTTCGCAGCCC
CCGCAGGGGCGAGGGCCCGCGTCCGGACCCGGGCAACCGGCACCCGCGGCGACCCAGGCG
GCGCCGACGGCACCCTCCGCGGGCATCAGATCGTGCACGTCCGCGGGGACTCGGAGACC
GACCTGGAGGCGCTTCAACCGCGTCAATGAACCCCAAGACGGCCAACGTGCCCCAGAC
CGTGCCCATGAGGCTCCGGAAGCTGCCCCACTCCTTCTTCAAGCCGCGGAGCCCAATC
CCACTCCGACAGGCCAGTACTGATGCAGGCACTGNAGGAGCCCTGACTCACAAGCATGT
TCGAGGCTCATTCTCTNCAGCTTCTTGCAGTTGGGAAGC

Sequence 43

GTCGACCACGCGTCCGGGAGCTGCGGCGCCCTCCCTTATCGCCTTGGCAACGACCCAGCC
GCGCCGCGAGGAGAACCGGAATGGAGGTCTGGCGTGAGGGGCGCCGAGCGAGGGGAGG
CGCGGGCCACGGGAGTTCCGGGAGTTCCGGCGTTGCCGGCAGTCCGCAGTCTCGGCGG
GAAGGCTGTCCCGGCGCCTCAGGCAGCTCTGCGTGGGCGGGGTGACTTCTCGCGATCC
CCTGCGCGAGGTGAAGGGCAGGGACCTTTGCCGCGCCTTCCACGCGCGTCCCCACCGG
CGAAGTGGGCTCCATCTTCTTCAAGACTTGTGCTTCGCGGACAGGGCGCCCGTGGGTT
CTTCCCGGCCCTTCGTACCGTCCTTTTCAAGCGGGCTTCGGAAAGCGGGTTCCTTG
TCTTTCGGACGCATTTTACCCCGCGCCGGGGAGGAGCTTNCCGGGNAAGGGTTCACGG
CGGCCGAGGGTTTTCC

Sequence 44

CGTCCGCGAGACTCCCGCGCCACCACCCCGGCGGAGCTGCTGCTGAGCCACTCAATCT
GAGCCCTGGCTACTAATAAAGTTCGTTTAAAAATCATAATCATTCTTAAGAGAGCGAAAG

TABLE 1
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AGGGTGCGAACTAGCCGCTCGGCCCGCANGGAGAGCTGGCGCGTCNGGAGGAGACAGCN
GCGGCAGCGTTGCGCCGCGACCAGGAGGAGCCGGTGGCGCCGGGCGGCGGGTCCGCGGC
CGGTGGGGGACNGTGAGTAGCGGCTCGCGCTGCGGTGCAGCGCGCTGCACTCACTCGCC
CTCTCCAGGGGCTGGGGGTTCTGTCGGCTCCACTGGGGAAGACTCAGCTTCTCCCCGGGG
TCCCCGGTTGTGCCTTACTCTCCGGAGTGGGCAGGGGTATCGAGGGCAGGGGCCTCCCGG
CCCCGCTCCCCATCCCCGTTTCGGACCGACGAGCCCGCGGCTTCTTCCCTTCCCTGAG
CACCGATCCCAAGTTCCA

Sequence 45

TCACCACGCGTCCGGGCGTCCGGGTACCCGAGGGCTCTCCCGCGTTGCTGGCACCGCTGG
CGCCGCGGTCTCGTAGCGCATGGGCCTCCTCCGAGGCGGGCTCCCATGCGCTCGGGCCAT
GGCGCGCCTGGGCGCTGTGCGCTCCCACTACTGCGCCCTGCTGCTGGCCGCGGCGCTGGC
CGTCTGCGCCTTCTACTACCTCGGCTCAGGCCGGGAGACCTTCTCCAGCGCCACCAAGAG
GCTGAAGGAGGCCCGCGCCGGGGCTCCCGCCGCGCCCTCGCCGCCGCGCTGGAGCTAGC
GCGGGGCTCCGTGGCGCCAGCCCCGGCGCGAAGGCCAAGAGCTTGGAGGGCGGCGGTGC
CGGGCCGGTGGACTACCACCTGCTGATGATGTTACCAAGGCGGAGCACAATGCCGCGCT
GCAGGCCAAGGCCCGCGTTCGCGCTTGCCTCA

Sequence 46

CCACGCGTCCGTGTGCGGCCGGCGCTCCCTTCTCTGCONGGTGGCGAGTACACCTGCTCA
CGTAGGCGTCATGAGGTCTCCGTTTCGAGACCTGGCCCGGAACGATGGCGAGGAGAGCAC
GGACCGCACGCCTCTTCTACCGGGCGCCCCACGGGCCGAAGCCGCTCCAGTGTGCTGCTC
TGCTCGTTACAACCTTAGCAATTTTGGCCTTTTGGTTTCTTCATTGTGTATGCATTACG
TGTGAATCTGAGTGTTGCGTTAGTGGATATGGTAGATTCAAATACAACCTTAGAAGATAA
TAGAACTTCCAAGGCGTGTCCAGAGCATTCTGCTCCATAAAAGTTCATCATAATCAAAC
GGGTAAGAAGTACCAATGGGATGCAGAACTCAAGGATGGATTCTCGGTTCTTTTTTTA
TGGCTACATCATCACACAGATTCTGGAGGATATGTTGCCAGCAAAATAGGGGGGAAAAT
GCTGCTAGGATTTTGGGA

Sequence 47

CGCGTCCGCGGACGCGTGGGCGGGGCGCGGAGCCGGGCCGGGGCATGCGCCGTCTCCGN
CTCGGGGCCGNCGGGGGCGCCCTGCTGAGCGCTACCCACGTGCGTCCGCGCCACCTCGCG
GGCGACCCCGCGGCCAAGGCCCGCGGAGCGGNTCCCGGGCGCCCCGAAGTACGCCCC
AACTTTGGGCGAAGTTTGCCTGCGCCTCTCCCCGCCGCCACGCGGCGCGCCGGGGCGCG
GACGGNAGCGGCCCGGGGATGCGCCTTCCCGGGGTACCCCTGGCGCGCCCTGCGCTGC
TGCTGNTGCTGCCGNTGCTCGCGCCGCTGATGGGAACGGGTGCGCCGGCCGAGCTGCGGG
TCCGNGTGCGGCTGCCGGACGGCCAGGTGACCGANGAGAGCCTGCAGGCGGACAGCGACG
CGGACAGCATCAAGNCTCGAGCTGCGCAAGCCNGACGGCACCCCTCNTNTTCTTNACCGCC
GACTTTAAGA

Sequence 48

GCGTCCGCTGCATTGCGCCACCGACTCCACTATGTTGAAGAAATTCGACAAGAAGGATG
AGGAGTCAGGTGGAGGCTCCAACCCATTCCAGCACCTTGAGAAGAGTGCGGTACTCCAGG
AGGCCCGTGTATTTAATGAACTCCCATCAACCCTCGGAAATGTGCCACATCCTCACCA
AGATTCTTTATCTCATAAACCAGGGGGAGCACCTGGGGACCACGGAAGCGACCGAGGCCT
TCTTTGCCATGACCAAGCTCTTTCAGTCCAATGATCCCACTCCGTCGGATGTGCTACT
TGACCATCAAGGAGATGTCTTGCAATTGCAGAGGATGTCATCATTGTACCAGCAGCCTAA
CAAAAGACATGACTGGGAAAGAAGACAACCTACCGGGGCCCGG

Sequence 49

ACGCGTCCGCGAGAANGCTCTCAGATGGGACAGTCTTTTACTTTTATTCTCACCTCTGTAA
ATAGCAGGACAGGTTGGGGTGGGCCTGACTTCTATTCTGCTTTCAGGGGGTACTTACTGG
AAAATCAACTTAGGAAGTGAATTTGAGGGTTGGTGAATTTTAAGCCAGCCTCTGATCC
TTGGTTGCACAAAGCCTAATTTCCAAATATTTCTAACAGATTCAAGACTGTATTGGCAAA
GAGGTAGAGAGCTATGATAATGACATAAATTACATAAAAATCCAGTTGAATGAATAAGAA
GGAATTTGGGCGTATAACCCATGGAACACCAATGGTGCTAAGAATTTGCCAAACCCTCAG

TABLE 1
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CTTCGTATAAGTCCCAAAGAACTCAGGCTTATAGCACTAAGCAAATTACCAGTGGGAGGA
GGAGGACCTGCCACGGAGCTGGATAATTACATTTAAATATTTTTGCCANTCTGTTGGAGA
C

Sequence 50

NOGCGTCCGGCAGGCGGGTCGTAGAGAGCGTTTCANGCCGTCTGTATATCTCCCCAGATAC
CTGAAACTGACCACCTGAGTACGTTTTCCCATTTGCTGAGCTGTTTCCCTGATATCTGGCC
ATGCAACGGAGATCAAGAGGGATAAATACTGGACTTATTCTACTCCTTTCTCAAATCTTC
CATGTTGGGATCAACAATATTCCACCTGTCAACCCTAGCAACTTTGGCCCTNAACATCTGG
TTCTTNTTGAACCTCANAAGCCACTGTATAGCTCCTGCCTTAGTGTGGAGAAAGTGTTAC
CAGCAAAAAGACTGGCAGCGTTTACTGCTCTCTCCCCTTACCATGCTGATGATTGGCAT
TTGTATTTCAATATGGCATCCATGCTCTGGAAAGGAATAAATCTAGAAAGAAGACTGGGG
AAGTAGAT

Sequence 51

GCGTCCGGAAGGTCCTTGAGCCATCTGGATGGCGGGCAGTCTGGCACACTAATGTGTTCA
AGGTGCTGGTTGAGATCACAGATGTGGACTTTGCAGCCTTGAAGGCAGTGGTGAGGCTTG
CTGAACCATACTCTGTGACTCTCAAGTGAGCACTTTTACCATGGAGTGCATGAAGGAGC
TCCTTGATCTGAAGGAGCATCGGTTGCCCTGCAGGAGCTGTGGGTGGTGTGTTGATGATT
CAGGA

Sequence 52

GTCGACCNCGCGTCCGGAAAAAATAATGACCCAGAGATATTAACAACCTGACCTGGTTA
TACAGTTAGATATTTGCACAGTCTGGACTCAAACCTGGAGGCTTCTGACTCCTCATCTAGG
CTCCTCTCACTCTGCCATTGCATGGGTTTTCTCATATACCTTCTCTCATAAGGTTTTAC
AAATTTGTCAACCGTCAAATAATTATCAAAATTATTCACTATTATAGATGAAAATAATG
TGCTTATAAAGATTAAGTAACTTTCTGAGGGCGCAGGTATCTGGTTCACATAACAACCTA
GCCTGGCTTAGAATAAACACATATTTCTGGTTCTGAAGTTGGTGTCTTCTCCTACCACTT
TCTGCTGTCTCTAAAGATAAAGAATGTTATTGGCTCACTGAATTAATCCATTCTGTTCC
TGGCTGAAATAAAAAATTGGTATATTCCTTACGTGAAGTGCAACAGGAAGGGGGCTTTTA
CAACTTCCTTT

Sequence 53

GGAGTCNCCACGCGTCCGCGCGCTGGAGGAGTGGAGCAGCACCCGGCCGGCCCTGGGGGC
TGACAGTCCGCAAAGTTTGGCCGAAGAGGAAGTGGTCTCAAACCCCGGCAGGTGGCGAC
CAGGCCAGACCAGGGGCGCTCGCTGCCTGCGGGCGGGCTGTAGGCGAGGGCGCGCCCCAG
TGCCGAGACCCGGGGCTTCAGGAGCCGGCCCGGGAGAGAAGAGTGCGGCGCGGACGGA
GAAAACAACCTCCAAAGTTGGCGAAAGGCACCGCCCTACTCCCGGGCTGCCGCGCCTCC
CCGCCCCCAGCCCTGGCATCCAGAGTACGGGTGAGCCCGGGCCATGGAGCCCCCCTGGG
GAGGCGGCACCAGGGAGCCTGGGCGCCCGGGGCTCCGCCGCAACCCATCGGGTAGACCA
CAGAAGCTCCGGGACCCCTCCGGCACCTCTGGACAGCCCAGGATGCTGTTGGCCACCCTC
CTNCTCTTCTCTGGAGGGCGCTCTGGCCCATCAGACCGGATTATTTTTTCAA

Sequence 54

CNCCCGTCCGGAATNCCCATAGTTAGCTGCTGTGCTTTCACAACTTCTTTCTCTGTAAAT
TCCTCGCTTGGCNCTGAGAAGGAAAAAAGATGTTGTAAGGGCTCAGCGAGGAATTTAC
AGAGAAAGAAGTTGTGAACCACCATAGTTAGTTGCTGTGCTTTGAATTTCTTTGCTCA
AATGGCCTCAGCGAAATCTTATTTGCCTATAGCATATCTACAAAAATTTTCTAGACCG
TCTTTTCTACAACCTGGATGGTAAAGTTGATTGAAGTGTGCCTCATGTAGCTTTATGTTG
GGGCATTTGAAGGGCTATGGCTGGACCAGAGTGTAAATATAAATGCTTAATAGAGAGGGGA
AAAGAAGAGTGTAAAGAACATTATAGGGCTGGGCTCACGCCTGTAATCCAGCATTTTGG
GAGGCTGAGGCAGGCGGATCACGAGGTGAGGAGTTCNAGACCAGCCTGACCAACATGGTG
AAACCCCATCTCTCTAAAAATACAAAAAT

Sequence 55

GTCGACCNCGCGTCCGCAGCCTTCCGGCTGCGGAGGGGGCTCGGCGGCGGCGCGGAGAA
AGTTGCTCCGAGAAGAGGCTGGGTGAGCTGGGCCGAGCCGGGCGCGCAGGGCGGGCGTC

TABLE 1

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GCGGGCGTCCCGGGCGGACGCGGGCGCGGAGACTGCCGGCGCGTCCCGGGGGTTCCGATTT
GAAGACCTTGCTTCTCATCACCCACTGGATTATGCCCCAGGCTTTCTACCCAATGATCC
TCTTGCAACACGCCGTGCTTCTCCACCTAAGCAGCCCTCACCTCGCCTCCTATGTCAG
TGGCCACCAGGTCTACAGGAACCTTGAGCTTCCACCACAGAAGCCTTTTGGGCAGGAGG
CTTCCTTGCTTCTGCAGGGGAAGAAGAGTTATCGAAGGGAGGGGAGCAAGGACTGTGCC
CTGGAGGAGCTATGTAAGCCCCTGTACTGCAAACCTCTGCAATGTCACCTTGAACCTCTGCA
CAGCAAGCCCAGGCTCATTATCANGGTAAAAATCATGGTAAGAAA

Sequence 56

ACCNCGCGTCCGGACCTGTTGGCGACATGGTGGCACCCGTGCTGGAGACTTCTCACGTGT
TTTGCTGCCCAAACCGGGTGCGGGGAGTCTGAACTGGAGCTCTGGGCCAGAGGACTTC
TGGCCTTTGGCACGTCTGCTCCGTGGTGTCTATGACCCCTGAAAAGGGTTGTTGTTA
CCAACCTGAATGGTCACACCGCCGAGTCAATTGCATACAGTGGATTGTAAACAGGATG
GCTCCCCTTCTACTGAATTAGTTTCTGGAGGATCTGATAATCAAGTGATTCACTGGGAAA
TAGAGGATAATCAGCTTTTAAAGCAGTGCATCTTCAAGGCCATGAAGGACCTGTTTATG
CGGTGCATGCTGTTTACCAGAGGAGGACATCAAGATCCTGCATTATGTACACTGATCGTT
TCTGCAGCTGCAGATTCTGCTGTTGACTCTGGTCTAAAAAGGGTCCAGAAAAGTAATGTG
CCTTCAAACCTTAACTTTGGAA

Sequence 57

GTCGACCACGCGTCCGTCTCATTTGTGAAGAGGTCTGTCTTCTGAGGAAGCAGGGGACC
CTCACCTGTGAACCAAGTGTGCCATGGGAGCTGCTCCATGTCCAGGTCCAGGTCTCCTGG
TCTGCAGGGAACGGCACAAGAGGGCTGGCCTAGGCCAGGAGGATGTGATCTGTCTAGAA
GGGGGCTGACCTGCTTGCTGACCCCGCTTGCTGCTGCCTGGCTGACCTGACTCAGCCACG
GCTGTTCCGAGGGGCCCTTCTGAGTACGAACCTCCAGTTGGAGGATCTGGGTGAAGACCCA
GCTGCTTGAGATAGCAGCCTCTGGCTAGGCCCTTGGCGTGGCCAAGCCAATCAGGCAGGT
TTAGAGCCTGGTGGCCCTAGACAGGTCTTGAACCAAGAACAGGGGGTAGCCTTCAAAGG
CCAGCCCTGCCTTCCAACACCGCTCCACAGCGAGGGAAACCAAGGCTCTTAGGGCAGGA
GGCTTGT

Sequence 58

CCNCGCGTCCGGGGAGCAGGGATCAACGGTGGTCCCCGTAAACCTGACAGTAAACCTGAC
AGAGGCTGCAGGAGTGCATTTCCACCCAGGGTGCACCTCAGCGAGTGGAACCTCCACACCCG
TTTCTTTGGAGTCAAGGCGCGACCTCTCAGGGAGGAGACTGCTCCTGGTTGCCCACTGCC
GGGTGATCCCAGCTTGAGTGGAACCCCTCCGACGCTGGCCTCTTCCAGGGTAGCCCTC
ACTCCCCTCTCTTGTCTAGGATAAGGCCGAGGAAGGCTGACGAGTTCCAGCTCTGGG
GATGCCCTATCAGCTGTGTACCTTGAACAAATCATTTCTCCTCTTGGGTCTCTGTTTCC
TCCAGTGTGAAACGTGGTGAAGGCATGAGGGGCTATGGGAGCCCCAAGGCCTCTTTCAGA
GATCTCCTCTGGGTCCCATGTGACCCCGTGGCTATCCCCAAGGCAAGAGGGTCCCCAGC
CCTGCACCAAGGCCCTGGG

Sequence 59

CCGAGGAAAGGAGTTGGTTCGCGCAGGTGCGGCGCCTGGGTCCCCATGGCGCTGTGGCGC
GGCTCCGCGTACGCGGGCTTCTGGCGCTGGCCGTGGGCTGCGTCTTCTGCTGGAGCCA
GAGCTGCCAGGCTCGGCGCTGCGCTCTCTCTGAGCTCGCTGTGTCTGGGGCCCCGCGCT
GCGCCCCCGGGACCCGTCTCCCCGAGGGCCGGTTGGCGGCAGCCTGGGACGCGCTTATC
GTGCGGCCAGTCCGGCGCTGGCGCCGCGTGGCAGTGGGGTGAGTGCCAACGGGGCCTGGG
TCTNTGAGCCTCCGAGGTGGGCTTGGAGGTGGGCGGAGCCGCGCAGAAACAGGGCTTC
TCAGAGGNCCCCGGGAGGCGCTTGCTGTCCGCGCTGGCCCC

Sequence 60

CGCGTCCGGTGGGAAGCCAGAAGATAAAACCAAATGGCTGGGCACGTCTTTAGGTTATTC
CTAGCTAAGAGTTAAGAGTTGTAAGCTCTCTATTCTTTGTTCTTCAGCCTTAACTATC
TTTCTTCTATTAACTTTATTTGTCTCAGTTACAATGATAGAGGTAACCTTCACATACTAA
AAGAAATTAGGTTACCATGTGAAACATTCTTCTTGGCTTGTGCTAATGTTATCAGATCCA
AACAGCATCTGAAAGAAAATTTCCAAGTACGATGTTGTTCTCTTGTCTTCTGAAATACA

TABLE 1
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TATCATATGTTAAAGTGAGAGTTTTTATACATGTTGAAAGAAGTTGAATGACATAACAAA
TAGTTACTGAGGCCTCCATTTTCTTACTTCACAGTTAAAATTCCTGTTTCTCTTTGGGTA
TAGGAGGGTAGAAAGAAGTGGGAGAGTAATAGCATTTTAAACACAGAATCAAAAATCAT
ATTAAGAAGTAG

Sequence 61

CGTCCGGAGCATCGCGCACTGCGGCCGGGTACCGACGTGGGCATCCGCTACGTGGCCAA
GTACTGCAGCAATGCTGCGCTACCTCAACGCGAGGGGCTGCGAGGGCATCACGGACCACG
GTGTGGAGTACCTCGCCAAGAACTGCACCAAACTCAAATCCCTGGATATCGGCAAATGCC
CTTTGGTATCCGACACGGGCCTGGAGTGCCTGGCCCTGAACTGCTTCAACCTCAAGCGGC
TCAGCCTCAASTCCTGCGAGAGCATACCGGCCAGGGCTTGCAGATCGTGGCCGCCAACT
GCTTTGACCTCCAGACGCTGAATGTCCAGGACTGCGAGGTCTCCGTGGAGGCCCTGCGCT
TTGTCAAACGCCACTGCAAGCGCTGCGTCATCGAGCACACCAACCCGGCTTTCTTCTGAA
GGGACAGAGTTTATCCGGCGTTGTATTACACAAACCTGAACAAAGCAAATTTTTTAAA
AGCAGCGTATGTAAAGCACCGACACCCACTCAAACAAGCTCTTTCTTTCNGGAAGGGTA
TTAAGGAAT

Sequence 62

NCCACGCGTCCGCCAGNCTGTGAAGGATCCAGACTGGCATATGCAGGAGGAAATGGGGC
GGGCGAGGAGTAAGGACCCCAAAAAGCAGGGGTAGGGAAGGGCCCTCCAGCGCCCCACT
GTAATAGGGGCCTCATCAATGCCCCATGCTCACTGAATAAAGCACTGCCAGCGAAAGGTG
AAAAGAGGAACAAAGAACATTCTCCTGGACGCCACCCACAGAAAGCCACGTGCAGGCTTG
GCCCTACCTTGGGGACCTTGGACACGGAGCTGGTTATGTCACATCTGGCTCTCAGAGCT
GGGGCAGCGTCTAGGAGGCCTGATGTAGAAAGCACTCAGCTAAGCCCTAGTTACCGGCAC
ACGGGCACAGCGCCCCCTCTCAGCAAACCTTNCACGTCTTATGAAATTAGCACTGGATT
CCACTTCAATTGGA

Sequence 63

CCCACTGTAATAGGGGCCTCATCAATGCCCCATGCTCACTGAATAAAGCACTGCCAGCGA
AAGGTGAAAAGAGGAACAAAGAACATTNTCTGGACGCCACCCACAGAAAGCCACNTGCA
GGCTTGGCCCTCACCTTGGGGACCTTGGACACGGAGCTGGTTATGTCACATCTGGCTCTC
AGAGCTGGGGCAGCTGTCTAGGAGGCCTGATGTAGAAAGCACTCAGCTAAGCCCTATTTA
CCGGCACACGGGCACAGCGCCCCCTNTCAGCAAACCTCCACGTNTTATGAAATTAGCACT
GGATTTCACCTTCAATTGGA

Sequence 64

NCGCGTCCGCTTCATCTTAGGATAAAGTCTAAATCTTTGTTTTTGTATTGTACTAAAC
TCATAAATCCTAGGTTATAAAGATAAAGCCTTAACTTTATCTCATCATCCAGCCCAATT
TCCAGCCACAATGAAGTACTTAAACTCTGTGTCTTTGTACTTGCTGTTCTCTTGGCCTC
CAATTCCTTTTTCATCTTTTCCATTCCGGTAAAGTTTGTATCCACAGGCCCTATCTTGG
AAGCCTCCAGCAACTTCTCCAGACAGAGGTGTTAGCAGTGTAGGATCAGATTTCTCAACC
ACGTCACTCCCATGTCTGGGTAGATATCTCTGCCAAGTGTTCTCATAGCACTTGAGCAG
TACTCTCTAAGCGCCCAGGATCTACCATGTTGCTTTTTTAAATTTGATTAATTTATTTT
TTTATACTGCTCCTTGTGGAGCANGGAGTGTTCCAGAGTAGCCACCATGTTATATTGA
ATGGATCTGTGTGCATAATGCAGCTGTCCATCTACATCGTATATTTTTGTCTCCTCAAGG
GTAGGGA

Sequence 65

GTTTGTATTCTGGATACAGGGGATACTGGGGCTCGCTATGTGTGTGGAGCCATCCCTTCC
TTGCCCCAGCCCCACCTCCCTCTCAAACCTCTCTGGCTCTTTCTGAGCTTCCTTTCCTG
CTCCCCAGCTTGCCAGTGCTCAGTGCCCCACTTGGCTCTTTTGTACTTCGGGTCAAGT
GGAGCCTCTTGGGAATGTGAAGTGCCTTACAGAAAGATTGCACTTCAAGAGGAGAGGCTG
CAGGGAGCCATCCTAAACCCAGAGGCCTGGAGCTTACCGTGTCACTTTACTTTTGTACAC
AGGGGTCTCCTTAGTGCCCTCGAGAAGGATTCTTGGCCCTGAGCTTCTACTCCTGAGGCC
ACCTCTGTGCAGCCCCAGCTCCCTCAACTCTAGGCTGTAGTCTCAGTGGGAAAGCCTGGC
TTGGGGGTCTCCTAGGAATGTCCACCTGAAGGCACACTTGATAGGGGCTTGACAACCTTA

TABLE 1

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TG.TCTGCCAAGGCCACCTGAGGAACTCCTGGTGCCTATAAGTTCCACCTTCCCTTCCCTT
NCT

Sequence 66

CGTTCGGCAGCAGCAGCTGGCGGCCAACCGGCACAGCCTGGTGGAGAAGCTGGGGGAGCT
GGTGGCGGGTGGCCACGCACTGGGTGAGGGCCAGTTCCTTCCCTTCCCTTCTGTCGGC
CACCCACCGAGGAGACGCCCACCCACCCACGCCGNCACCAGCGACCCCGGCCGA
AGACATGCTGGTGGCCATCCGGCGTGGGGTCCGGCTCCGCAGGACCGTCACCAACGACAG
GTCGGCGCCCCGCATCTTATGATGGCGCCACCCTCCCATCCTCTCAGGCCCCAGTGCGA
GCAGGTGGCCTGGTCTGTGAGCCGCAGGCACTCAGAGCAAAGGCCAGCCAGGAGAGAGG
ACAGAGCCAGGGCAGAGGCCATGCCACTTTATGGAAAGACACCTCACTTGGATTCCAGCA
TTTAAACAGGAAGTGACTTCTTAGCAAGCCTGGCCAGGACGGAGCCTGCAGGCCTGGGCC
TGGTTCCGGGTCTGTTTTATGCTCTTCGGTCCCTTCTCTTCTCTCTGGGGCCCTGCCT
CTTCTACCCATAAAGCACCAAAACCAGGGCCGCTGCCATGACAGAGGGGCCAGGCTGGC
CTTCTTTTACATCCCGGCCTNTTCCAAGGCTGGTCTGCCTNACTTCTTCTGGAATGTG
GGCCCCCTCTCCCTTGCTGACCCCTCTCCTNTTGCTTNTTTGCTTTTCCANGCCCT

Sequence 67

CGCGTCCGGCAACCTAAAAATAGGATGCACCAATAGCATGTGGTTCCAAGTAAGTTGTGA
TTTTATTTTGTAGACAGTGTCCACTGGAAGGGAGGGAAGGGCTTACATTCACAGACAGT
AAAGCAGGGCTGTGTAAGGAGCTACATTTACTTAACAGTCTCCTTCCAGCTAGGTTTGT
TTTATTTATTTGCAAGTCAGCTAAGAATTAACCTTTTAAACCATCTAAACAGGCAAGCA
ATATAAAGATTTCTACTAGTGCAAGGTAAGTGGTTTGAATATACAAGTGCCCTTCTCTGC
CACCCAGTCTCACTACCGTTTTAGTCTGCAGCTGGGTAAAGCCACTATTGTGTGGAAAC
TCTCCCATGTGCCCTGTCTCTACCTCTGGACACACCAGCTCCTTCTTCCACCTATTCTAT
TCCTCAGTTAAGCCAAGTGATCAGAAGTAGTATTAATGGGTAGATAATTTTA

Sequence 68

GCCACGCGTCCGGCGCCGGGTGCGCCAACCTACGCAAAGACCAAGCGGGCTCCGCGCGGAC
CGGCCGCGGGGCTAGGGACCCGGCTTTGGCCTTCAGGCTCCCTAGCAGCGGGGAAAAGGA
ATTGCTGCCCCGAGTTTCTGCGGAGGTGGAGGGAGATCAGGAAACGGCTTCTTCTCACT
TCGCCGCTGGTGAAGTGTGCGGGGAGATTGGCAAACGCCTAGGAAAGGACTGGGGAAAATA
GCCCTGGGAAAGTGGAGAAGGTGATCAGGAGGCCGGTCCACTACGGCAGTTTATCTGTCT
GATCAGAGCCAGACGCGACGCGTCCACTTCGCAGTTCTTCCAGGTGTGGGGACCGCAGG
ACAGACGGCCGATCCCGCCGCTCCGTACCAGCACTCCAGGGAGAGTCAGCCTCGCTCC
CCAACGTCGAGGGCGCTCTGGCCACGAAAAGTTCCTGTCACTGTGATTCTCAATTCCTGC
NTGGGTTTTTTT

Sequence 69

ACCCANACCTGGGAGGAATTAATGGAATGCTTGNCCCTGGGCAGCCTTAGAAACAGACCC
NAGCTTATCTAANGCTGCTCCGAGGCAGTGACCCAACCTANGGCTCAGGAAGTCAAGAANA
TTGACCAAGCTTATAGTGATCACCTCTTGACCTTTGTGTACAGTCNTTTTGCTTTTAA
AACCTTTTTGTGAACCGNTTATGGCCTTTGATTCTGACAGGCATCNTAGTTGTGAAGGGG
AACANGGGCAGGATATAATGTTTCGTTTACCAAATACAANAAAAATCNGANGTACCCAGNT
AGATCACAANATTTTTGGGAGAAGGNCTNTTGGGTCTCTTCCAGGAGNTCACTTCANN
TTGGNAACCTTGACAGGGGCTTGGGGAATTTANTATCCCTTGGGCGCAGGGNCAAAAN
GGGTGGCANTTTCCCTCCTTGGAGNTTTTTTTTTCAAGAANTCCTTGCTNTGGGGAAAAGA
TGGTTACNANNATCCCGGAATTTCCAACCCCTTCCCTATTTTTTTGGTTAAGG

Sequence 70

CGCGTCCGGCACATTAATAAAAAAATACTTATTTTTATTATGGAAAGGTCTTGGAACATT
CTGATAGTGAGCTTCCGGCATTCAATTTGCTGTATCTGGCTTAGGAGATGCTAGGGTGGCA
AGAAGAGGCACAGGCTTAGATGCGCTGGGTGGAGAGTTGGCTTTAGTAATGATGGTTGAC
TCTAACGACTTGATTATCAGCTGTGCCTTTTTCTTCTGCTTCTGAGGTGTGTTGCCT
GCATCCTAATTCACGTAAGTAGCAAGCTAAGCAGGTTGTAGCTGGAGATTGTAAGAA
ATCCTGAATGGAAACCAAAGAAAGACTGTCACATCACATGATGTGCCCTTTTCAATCCA

TABLE 1

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TGTCTCTTCCAGTGGCATCCAGTGCTGTCTCTGCCCCCTGCTGCTTCTGTAAAGATTT
TCTGACACAAGTAACTGCCTCATAGACCTTCCTTTTTATGAAATCCTGAGTTTTGGTTTG
GGTACGTCCTTTTTAGAT

Sequence 71

GCGCGGCTGTGCGAGGGCGGGGGTCTGGGGCTGCAGGCGGGGCAGGGCTGGGTGGGGGCG
CGCGACGCACCTGCCTGCTTCCTGCACGGGTGGNCCCCAAGCACTGCGGGGCCCCAGCCC
AAAGCGGACCTTGA

Sequence 72

CGCCCCGCGTCCGGGCGGCTGGTGGGCGACCGGGCGCATCCTCATTGCATGTGCGGCGGC
CCTACCTCGGCCCTGGCCTGACCCCGGCGGCCCTGCCCGCCCCTCCCTCCAGCATCATGG
CCAGCCCAAGAACCAGGAAGGTTCTTAAAGAAGTCAGGGTGCAGGATGAGAACAACGTTT
GTTTTGAGTGTGGCGGTTCAATCCTCAGTGGGTGAGTGTGACCTACGGCATCTGGATCT
GCCTGGAGTGCTCGGGGAGACACCGCGGGCTTGGGGTTCACCTCAGCTTTGTGCGCTCTG
TTACTATGGACAAGTGGAAGGACATTGAGCTTGAGAAGATGAAAGCTGGTGGGAATGCTA
AGTTCCGAGAGTTCCTGGAGTCTCAGGAGGATTACCGATCCTTGCTGGTCTTTGCAGGG
AGAAGTA

Sequence 73

GCCCCGCNTCCGGAAATGTCCGATTTTTTTTTAATTTAATGAAATTGTTAATGAGGAAAA
ATTTTTAATATAGGTCTTATCTACCACACATCCCCATAGATTTAAGGATTTAATAGAAA
GTCATGATGTATGTATTTAAGCCACGTTAAAAGAAAAAATAAATATGGACCGGTATTC
AGTGAATACAGTTTCATGGTTTTAATTCCTTCAAAGCACATTAATAATGGTGTGCTGAT
AAACCCCAAGTAAATTAACCCCTTTTCCGTATAAATCCATTTTTGTTTTGAAGAGGGGA
AATTATATTTATTGNTGTTTACTGAATCCTGGTGTGAAAGCATATCAGATATGTATGAAC
TGCTACTGCTGTACTTCCGATTTACGGACATCATTTTATTGCTATTTGTAGACCGTGATA
ACATGAACATGAGTCCTATTTATGTGGGCCTTCAGTGGATGGGCAGTGCCACTCANGTCT
CTGGGGGTTTCCTCTCTTAATTTTAAAGTAA

Sequence 74

AGTCGCCNCGCGTCCGTGTGTTTCTCCTCGGTCCCCAACTCTACCTTCCCCAACCCACAGT
TCCTGTCCCCAGATGTCCTGATGCCACCATGGCAGGGGAGCCCAATAGACTCCCAGGAA
CTTCAAGGAGTGTCCAGCAGTTTCTGGCTATGTGTGACAGGGGTGAACTTCCCAAGGGG
CCAAGTACACAGGAAGGACTTTGAACTACCAGAGCCTCCCCATCGCTCCAGAACAGACA
ACTCCTGGGCACCCTGGTCAGAGACCAACCAGCATATTGGGACCAGATTCTGACTACTC
CAGGGTGAATCCTCAACTAACCTACACTGCCACACTACCAGAAAAGCAAGGGCCTTC
AGGTTCTCACACTCAGTCCTGGAGTGGATCTTTTCATTACCCCTNCCACCCTNCCATT
GNTCATCCTGTGTACCCACCATCTAAGCAGTCTTCATGTACCCCTGAGGTCAAGCTTGGA
A

Sequence 75

CCCGCGTCCGGGCTGGCATGGCTCTATATAAGATTGTTGCANAAANTCCCTACTACTTTT
GGTCTGTGATGAGCTTAATTATGCAATCTATATNGGCACAGGATGAAAACCTCTCAAAAA
CAATGTTTCTGCCCTTGCTGAGAGAATGGTCGAAAAAATGGTGAAAGAGGACAAGATAG
AAGCTGAGGCTGAAGTTGAACCTTATTATATGATCCTGGAACGTTTGGGAAAGTACCAGG
AGGCCTTGGATGTCATCAGAGGGAAATTAGGAGAGAAGTTGACAAGTGAGATTCACAGTC
GGGAAAATAAATGCATGGCTATNTACAANAAGCTGAGCAGGTGGCCAGAGTGCAATGCC
TTNCCGGCGCCTCTTACT

Sequence 76

GNTGGAGGGAGCTTTGCTACTCTGCTCTTGGCATGACTCCAGGATTTTTTTCTGGAATCC
AACCTCTGTCTCTTAGGAGAAGGAACCTGTCTTGGTTCAGATGGCTGGGCATGAGGAG
GAAAATTTCCATTAGTGTAAGAAAAGTGCTGGACAGAATCCGGTTTGGAAAATTACAAATC
CAGTTGGTCAAAATAGGCCATTTCTATGTGTGACCTATTCTGGGTATGCCAACTGGACT
GCTTCCTAAACAGGACGAGGAAAAGTGAGGAATTTTTATATGAAAGCCTTAGCCTGTCT
GGCACCCATGAAAAAACTATTTATGCACTCCTACTTTCACCCGTCTTTTGCATTCTCT

TABLE 1
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ATTTGTAGCACAAACAGAGTTGAATGCCACAAAACACCCCGTTTATAGTGAGCTGTTTTCA
GTGACCAATATCAGAAGGAGGCTTGCTTCTGGACTAGCCTACTAATTGCCAGCAGCCACC
ATTTTTCATG

Sequence 77

GGAGAGTGCCTTGCCGGACCCTCAGGACGGAGCTGCTGGGCTGCTACAGTGACCAGGACT
TTCTGGCCAAGCTGCACTGTGTGCGGCAGGCCCTTCGAGGGGCTTCTGGAAGACAAGAGTA
ACCAGCTTTTCTTCGGGAAAGTGGGCCGACAGATGGTGACAGGCCTGATGACCAAGGCTG
AGAAGAGCCCCAAAGGCTTCCTGGAGAGCTACGAGGAGATGCTGAGCTATGCCCTGCGGC
CCGAGACCTGGGCCACAACACGGCTGGAGCTGGAGGGCCGAGGGGTGGTATGCATGAGCT
TCTTCGACATCGTGCTGGACTTCATCCTCATGGACGCCTTCGAGGACCTGGAGAACCCTC
CGGCCTCGGTGCTTGCCGTCTGCGGAACCGCTGGCTGTCANACAGCTTCAAGGAGACGG
CCTTGGCCACTGCTTGCTGGTCCGTCTGAAAG

Sequence 78

CACGCGTCCGGAGAACGTGATTTCTCAGCCGAATGAGTTTGAACATACCCACAGGAAGA
TGACTTGGGTTCAAGGAAGAAGATTTGGCTCCAGATCATGAAGTAGGAAATGCCTCTCT
CAAACCTGAAGGCATCCAGAACTGGGATGACTTATGGGTCCAGAGAGAGGGTCTAGGAAA
GCCTCAGCCTCGGGACAGAGGCCCGGCTCCTGGGTGAACCACGCTGGGGCCAGGCTAG
TAGTGATCGGGCCGCTGTGTGTGGTGAGTGTGGCAAAAGCTTCAGGCAGATGTCAGATCT
GGTGAAACACCAGCGGACCCACACAGGGGAGAAACCCTACAAGTGTGGGGTCTGTGGCAA
GGGCTTTGGGGATAGCTCTGC

Sequence 79

CGCGTCCGCAAGAAGATAACCCCAAACCTCTTTTCTCAGAGAGTTTGTAGCCTAGTTTGGG
ATAGATAAGATCCACATATTTAGTCATATAAGACTACAGGAGAGTAGAATAGATGCACCA
GATGGTGTGAATGAAAGTGGTACTTTGTAGACTATAAGTGTGTAAATTCTAAAGGACA
GGTACTTTTGCCTGGAGTGGTCAAGAAAGATTTATTTAAAATAAGGATTGACGGGCA
GACTTAGCAGTCAAAAGGGAGAAAGCGGGTAAACAAATGTAAGCCATCATAAGAGTGCA
TGTGGTTTGAAGCATCAGGGAAAAGACTAGCCAACCTGAAGTAAAAGGTTCTGTCAAAT
TGGGCAATCAATAGCATTAAAGTTGGAACAGCTTGGGGACAGACACATAAGAGGGCCAGA
GTGTGAATAATTTATCTAATACTTTATAGCACTTGGACATTTACAGAGCACTTTTCTC

Sequence 80

TNCTCTCTGCCCCCCACATTCGTCTCTTGATTCTCTGCTTCTCTAGCTCAGCCGCTGA
CCTTCGTGCCTAGCCGCCACTAGTCCTTGACCAGCGTTCTGGCAACTCTTGCCCTCAAGT
TCTTCAGCTCCAGGCTGAGCCGATGGGGATTGAGTTTTCTGACATCACAGCTNAGTTCT
TGATTTCTGCAGCAAAACCTTCAAGGCTTCCATCACCTCGGCTCTAGAGTCCATCATGCT
CCTCTCCTATGACCTGCTAGGGCTGATCAAACGTTCTGTCTCCTGCCGTGCCCTGCCCTG
CCCTGCCCTGAGCTTCGCTTAGCCTGTTGCAGGCTTTGTGTTTTCTTCTTGTGCTGTTG
GACCACGCAGCTCCTTCTACCCATAAAACCCCTTCTCTAGGTCGGTGGAATCTTGGTC
ATCCTTCCGTGTCTAGNTAAACTGGNACCTCCTCCAGAAAGCCTTCTAAAACTCCTT
CTCAGGGGAACCTGGTTTTCTTTCT

Sequence 81

CACGCGTCCGCAAAATAGCCCCACATCCNGGCAAAAGGGGCCTTTCCCTTGGCCCAGAAG
AAAAAGGAACAAGTGAGTGCAGAAGAAAATCTGTACTGAGAGACTTGGGCCTAGCTTGT
CTTCAGTGAGCCAACCAAGGCTGGTGCTGTCCATCCAGTCCCTCGACGCCAGCACCAC
CCAGCGCCAAACTTGCCGAGGACTCAGCTCTGCAGGGTGTGCCCTCTCTGGTGGCAGGTG
GAAGTCCACAGACTCTTCAGCCGGTATCCAGCAGTCACGTGGCTAAAGCTCCAGTCTGA
CCTTCGCTTCCCCGCCAGTCCTGTCTGCGCATCAGACAGCACTCTCCATGGGTTAGAGA
GCAACTCTCCCTTTTACCACCTGTCCGCTAATTATAGCTCACCTTTATGGGCTGCAGAGC
ACCTCTGCCGCAGCCAGATATCTTTTTCAGAGCAGCGGCAGAGCAAACATAGGCGCTTTC
AGAATACCCTAGTAGTCCTACATAAAATCTGGGTTGCTGGAGATCACTTTTGAAACCAA
G

Sequence 82

TABLE 1

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ACGCGTCCGCACCCCTGTGTCCAATGACATGTGCACCCAGGTCGCCAAGCGGCCTGTGGA
CACCCAGGCCTGTAACCAGCAGCTGTGTGTGGAGTGGGCCTTCTCCAGCTGGGGCCAGTG
CAATGGGCCTTGTCATCGGGCCTCACCTAGCTGTGCAACACAGACAAGTCTTCTGCCAGAC
ACGGGATGGCATCACCTTACCATCAGAGCAGTGCAGTGCTCTTCCGAGGCCTGTGAGCAC
CCAGAACTGCTGGTCAGAGGCCTGCAGTGTACACTGGAGAGTCAGCCTGTGGACCCCTGTG
CACAGCTACCTGTGGCAACTACGGCTTCCAGTCCCGGCGTGTGGAGTGTGTGCATGCCCG
CACCAACAAGGCAGTGCCTGAGCACCTGTGCTCCTGGGGGCCCGGCCT

Sequence 83

CCCCGCGTCCGCTCTTACGCATTACTCTATGTCTACTGTTATGGGTGTGTAATTTTATAC
CATAGATGTTTACTCTTTAAACAGACACTTCTAGTCTGTTTTATTTTCATGTGTCTGGGAG
CGGATAAAGTGTGAGGTTTCAGGGAGAAAGAGAGGTCTGTCTCAATGCCTTGGCACGGCAT
GAAGACAATCTCCCCTCCTTGTCCCCTTTCCCTGCTAGCTCCTGATGACTGACAGATTCA
CAGCAGAACAGAAAGGACTGGGAAGGGATGGAGGTGGGACATCTGGCACTGACCTTCAGG
GGCTGACCCTGTGGGGGAACATCTGCCCTGAAGAGTTGGAGCCTTCATGTGATGACACAG
AGCTGAAGTGTGATATTCGGGAGGGGATAGAGAGTGCTTGGAGGTTTTCTGATTTTGAAG
AATCCCAAGTCAGTC

Sequence 84

GTCCGGCCGCTTCCGGTCTCCCTCCCGGGCCGGCGCTGGCCTGACTGCGGCCCGGCTCCG
TAGCACTCCGCCCTCCGCTTCTCCCGCCCTGTAGCCGCGAAGACTGCTTCAGCCTTTCCC
TGTGCTGCCCTGCCGCGCATGGAGACGAGCTCGAGCTGCGAGAGTCTTGGCTCCCAGC
CGGCGGCGGCTCGGCCGCCAGCGTGGACTCCTTGTCCAGTTAATGTGTTAAGAGCCATT
GACATTTGAAGATCATCAGAAGTGAAGATAAAACATCTCAAAAATTATAATTGCCTCCAC
TTCTCATTGAGAGAATTCAGTGCATACAAAATCAGCTTCTGTTGTATCATCAGATTCCAT
TTCAACTTCTGCCGACAACCTTTTCTCCTGATTTGAGGCCCATGCAGTCCAGTTCGGGAGC
TAAGT

Sequence 85

CCGCGTCCGCGTGAGGTGTGGGTGTTCTGTTTCTCAGGTAAAACATGGCTAAAAGCTTACG
GAGTAAGGTGGAAAAGAAAGATGCGTGCTGAAAAGAGAAAAAGAATGCCCAAAGGAGG
CCAGCAGGCTTAAAAGTATTCTCAAACCTAGACGGTGATGTTTTAATGAAAGATGTTCAAG
AGATAGCAACTGTGGTGGTACCCAAACCCAAACATTGCCAAGAGAAAATGCAATGTGAGG
TAAAAGATGAAAAAGATGACATGAAAATGGAGACTGATATTAAGAGAACAAAAAGACTCT
TNTAGACCAGCATGGACNGTCCCAATTTGGNTGAACCCAAAGGCAAANAAAAANGNTTTG
ANGGCAAACCGANNGAAAAAAAANGGGGAAAACCAACCNAAANCCCTTAAAANGGGCCA
ANGGGGTTTGGCCNCTGNNAATNNTTTNAACCCNTTTGAAAACCCCCCTGGNNGANACC
NCCCGTAAAAAATNTTCCCCCNNTTTTTTTTTT

Sequence 86

CCACCGCCGTCCGAGGAGGGATCACCAAGCCGTGGGCCATGAAAGTCGGGGGGGGGCACC
GCAAGCTTGAAAGCTTCATCATTGACCTTTCNCAAGAAATTACCGGGGCCAAGGCCGCTT
GTTTCNAAAACCCCATGGAAACNAAAACGANGGGGAGGCANGGGAGAACCCACCCCTTG
GACTTTTTTTTNTTTTCTTCTTGACCTACCGAAGGAGGGGCACAAATTGCCGGGAAGATT
GCTTGCCTTTCCACCTTGGGACAAGGGGATCCTGGGACTTTTCCGGCCCCGGGGTTCCCN
TCCCGTTGGCCCCGGAAGGGATTGGGTGCAACAATTGACCCAAGGGAAGAATCCCCGGG
GACGGTCACAACCGGGGNACCAAGGNAAAGCTTTTTTGGGANGGGAACCTTTTTTTTA
ATT

Sequence 87

CCGGGTCCCTCCCTGCGGAGCCGCTGGTCCGGCTGGCGGAGATGTGACCGCGGGCCCCGGC
CGGCCTGCCTCAGGCGTCGCGTCAGCTCCCGTGTCCGTGCCCTTAACCCACACCGATGGC
GGGATCCGGCTGCGCCTGGGGCGCGGAGCCGCGGCTTTTCTGGAGGCCTTCGGGCGGCT
GTGGCAGGTACAGAACCCTGGGTAGCGGCTCCTTCNCTTCGGGGTATTCGGGTTTCG
CTTGTTGGGGAACCTTGTTGGCCCCCGGGGCCCTTAAANCAGTTNTTGCCGCCAGAAA
CCACCGGGGTGCGGCCTTGCCGCCNAGTATGNTTCCGAAAAAAAGGGCCGGGCTTG

TABLE 1
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NACAAGTTGCANGGGTCACAAAAACATCGTGAATTTTGATNGGAGTGGTTACAATCCAC

Sequence 88

CGTCCGTTTAATTATAACCTAGATTGTCTGGGCAACGGCAGGAACGGAGTGCCACTGTGG
AGCAGATAACTGCAGTGGTTTTCTAGGAGTGCGGCCAAAGTCGGCATGTGCGTCAACAAA
TGAAGAGAAGGCCAAAAAATGCTAAGTTAAACAGAAGAGACGAAAGATCAAAACAGAACC
AAAGCAGATGCATGAAGATTACTGTTTTCAATGTGGAGATGGTGGAGAGCTGGTCATGTG
TGACAAAAAAGACTGTCCCAAAGCATACCACCTCCTATGCCTTAACCTGACTCAGCCACC
ATATGGAAAGTGGGAGTGTCCGTGGCATCAGTGCATGAGTGCAGCAGTGCAGCTGTTTC
CTTCTGTGAATTCTGTCCACATTCATTTTGTAAAGATCATGAAAAGGGGGCCCTGGTTCC
CTCTGCACTGGAAGGCCCGCCTCTGCTGCTCGGAACATGACCCCATGGCTCCTGTGTCAC
CAGAATACTGGAGCAAGATAAAATGTAA

Sequence 89

NGTCGCCCCGCGTCCGTAAAATGTTAAGTCCCCTAAAAGTGAATAAATTTTAAATACCTA
CTTTTAAAAATACTGTCTTCTAAATTGACATAATTGCTTTTCTTACCAAAGAAGGAGAG
GTTCCCCTAATTCCTTTTGGGCCATAGATCCGCTTTTAGGATCTGATTAAAGATGTGGAC
TTTACC CGCAGGAAGATACCCATGGGCACACCATTCAAAATGTATCAGATTTCAACGGTT
TTACAAACTCCCCCGGGATTAAGTCAAATGGGTGGATATTACAGCTGTTTTCATCAGATA
TGTTTATTTGTTGACAACCATCAGGACAACAATGTTTATAGATGGAAGGATAACTTCCTG
GTTTTTTTCCACATTGAATGTGGCTAGTTACATATCTCAATTTAAATAAATTGTGGAAA
GCCAAAAAAGTATGGTCAAGCTAACCTTGGGGTGGCTTTTACCTGATGCCTACAAGCACA
GAAAAATAGTTTTTAA

Sequence 90

CCGCGTCCGATTATGCCAAGAGAAGGTATTACTTTAAGATGTGAAAAATGTAAATGGAA
AATTACATTACTAAGAAAAACAAAAAACACAACTGNNAATTAGAANTGAAAAACAT
TGCCACAAATGCAACGCACATACAAGTCATAAAGAAAAAAATAATTTAAATGAATAGA
AAATATTTAAGACTTAAGCTTTGAAGAACACAATTTAGATGCAATAATTTCATTTTCTCA
ACAAACAAGATTATGAGTTTCTAATCTTCAAACAAGTGATGGAATAGTGTTCCTGAAAA
AGAAGAAATCCATTTATTTGTTGATTCAAGATATATAGAAGCTGCTCAAAAAGATGCAAA
AAATGTACAAGTTCATTTATTGACAGCAGCTAATTTAAAAGATTTTGTAAAGTAGTAAAAA
TTACTTAAAAATTGGTGTTGAAAAAGAATACTTAACCTTAGCTGATTTTAAAAAACTTCA
AGCTTGATTTCCAAGTGCAGAATTTGTCAAATCAATGCGCAAAAATTAAGACTTATTA

Sequence 91

CCGTTGTCCCATATATCTTGTTCAGCAGCCATATATCTTGNGGTCTACACGCCTAAAGC
ATGATTTCCCTTGAAGTCTTGGGGTTGNTTAAAGGAGAGTCCCTTCAATATAAAACCTCT
GAAATATTAGTGAGAATGGCTCACTAATGTGAACAATGTTTAAATTATTTATTTATATAT
AGAATTACTGAATATTAGTACTGGGAAAATTTATAGAAATCATCTAGTCTTACCCTTCAT
CTTACATATAAGAAAAATGGTCTTTTCTTCTAATCACATTTACAAAATATGATATAAAC
TTGACCATGAATGTATGAGCCTAATTAGAGAAACAGAAAATCAGCATGTCAGTTTTCTT
CATTCAAATAACATAGTCTTTCTAAGCAGTCATTCTGGGAG

Sequence 92

ACCACGCGTCCGCAAGGCCCGCCCTTACGTA CTGCGAGCTCGGATCCCAGTGTGGACCT
GGACTCGAATCCCGTTGCCGACTCGCGCTCTCGGCTTCTGCTCCGGGGCTTCTTCCCTGC
CCGCCCGGGGCCCTGACCGTGGCTTCTTCCCCGGCCTGATCTGCGCAGCCCGGCGGGCGC
CCAGAAGGAGCAGGCGGCGCGGGGGCGCGCTGGGCGGGGGAGGCGTGGCCGGAGCTGCGG
CGGCAAGCGGGCTGGGACTGCTCGGCCGCCTCCTGCCCGGCGAGCAGCTCAGACCATGTC
GCCTGAAGAATGGACGTATCTAGTGGTTCTTCTTATCTCCATCCCCATCGGCTTCTCTT
TAAGAAAGCCGGTCTGGGCTGAAGAGATGGGGAGCAGCCCGCTGTGGGCCTGGGGCTCA
CCCTGTTACCTGTGGCCCCCACACTTTGCATTCTCTGGTCACCATCCTCGGGACCTGGG

Sequence 93

NCGCGTCCGCCAAGATGGCGTCCNTCATGGAAGGGCCGCTGAGCAAATGGACTAACGTGA

TABLE 1
18/467

TGAAGGGCTGGCAGTACCGTTGGTTGCTGCTGGACTACAATGCAGGACTGCTCTCCTACT
ACACGTCCAAGGACAAAATGATGAGAGGCTCTCGCAGAGGATGTGTTAGACTCAGAGGAG
CTGTGATTGGTATAGACGATGAGGACGACAGCACCTTCACAATAACTGTTGATCAGAAAA
CCTTCCATTTCCAGGCCCGTGATGCTGNTGAGCGAGAGAAGNGGA

Sequence 94

ACGCGTCCGCGGACGCGTGCGGGCCGGCCNCCCTGGACGAAAGAAGAGGGCCCTC
CAGGCCAGTCTGGGCACCCTGGGATAGCGGCTGCAGCCAGGCATGGCCGACTCTGCACAG
GCCCAGAAGCTGGTGTACCTGGTACAGGGGGCTGTGGCTTCCTGGGAGAGCACGTGGTG
CGAATGCTGCTGCAGCGGGAGCCCCGGCTCGGGGAGCTGCGGGTCTTTGACCAACACCTG
GGTCCCTGGCTGGAGGAGCTGAAGACAGGGCCTGTGAGGGTGAAGTCCATCCAGGGGGAC
GTGACCCAGGCCCATGAGGTGGCAGCAGCTGTGGCCGGAGCC

Sequence 95

CCCCGCGTCCGAGGTGACCTCCTTGGCCCAGATCATCTTAGAGCCAAGAAGCAGGACCAT
TCGTGGTTTTGAGGCCCTGATTGAAAGAGAGTGGCTGCAGGCTGGTCACCCATTCCAGCA
GCGCTGTGCACAGTCAGCCTACTGTAACACCAAGCAGAAGTGGGAGGCTCCTGTATTTCT
TCTCTTCTTGGACTGCGTGTGGCAGATCCTTCGTGAGTTTCCCTGTTCTTTTGAAGTTAA
TGAGAATTTCTCATCATGCTCTTTGAGCATGCTTATGCCTCACAGTTTGAACATTTCT
GGGCAACAATGAAAGTGAAAGATGTAAGTTGAAGCTACAGCAGAAGACGATGTCTTTGTG
GTCCTGGGTTAATCAGCCCAGTGAGCTGAGTAAATTCACCAATCCCCTCTTTGAAGCCAA
CAACCTTGTCTGCTGGCCTTCAGTTGCTCCGCAGAGTCTTCCACTGTGGGAAGGTATTTT
CCTACGTTGGAATAGATCCTCTAAGTATTTGGATGAAGCATATGAAGAAATGGTTAACAT
CATTGAATATAATAAAGAATT

Sequence 96

CCGCGTCCGGTTTNCCTGTTGGTTAGGCTGGTCTTGAACCTCCTGACCTCACGATCTACCC
ACCTTGGCCTCCCAAAGTGCTGGGATTACAGGCCTGAGCCACTGCACCAGGCCACCCCTG
TCTCTATTTTCTAAAATAATAAATCTGATTTTAATGTGGCTGGATATAAATCATATCACA
GTTGGATTGGAAGTTTGGGTTTTATCCTAACTTTGATGGGAAGCCATTTTAAGCAGAA
AGATGATTTTAAAAGACCACTATATTTCTGTGTGAAGAATGAAGTGGGAGATTTTCATAG
TATTATTAACAAAAATAGAATAGTTGGGGATCTGGTTTGGCTTGGGAAATGGAGGAAGTT
CAACTTTGGGCATGCTCCATTTGCATTGCCAAGACATTGCAGCAATTGGAAGTGCAGTCA
GAGAGCTTAGGAGAAACACTTGGCAGATGGACATAGAGAAGTAGTACTCAAAGCTTGTGG
ACATTGATTAAATAATCATACAGGAGTATGGGCTGACAAAAGATTNCAAAGAGAAAACCT

Sequence 97

GTCNCCACGCGTCCGGGACTCTCGGCCCTGGAGAAGGAGGTGGACTTTGACTCCGACCCC
ATGGAGGAGTGCTGCGGATCTTCAACGAGTCCACCAGCGTCAAGACGGAGGACAGAGGC
CGGCTGGCCCGGCAGCCCCCAAGGAAAAGAGTGAGGAGAAGGGGCTTTCCGGGTCTGACC
ACTCTGTTCCCCGGGCAGAAGAGGAGGATCTCCACCTTTCCAAGCAAGGCCAGGAGGTG
GAGCCCCCGAGGAGGGGTCCCGCGGTGCCCCCGGCCCGGCCCGACGGCGCAGGAGGTG
TGCTACCTGCGGGCCAGCAGGCGCAGAGGGCATCGGCGAGCTTGCTGCAGGCCCCCGCC
AGGCTGGCAGAGAAGTCGCCCTNCGTCCACATTTCCCGCCCCTGGCGAGAA

Sequence 98

CGCCNCGCGTCCGGCAAAGCAAAGGGGAAATTATTTGGTGGATGGTAGCTCAAAATTGGA
ACTCTTGTTCTAATTCAGTTACATTGGCTTTACCCTCCTTAGATTTTTCATCAAAGGGCT
GTCCCATTTGCAATCTTACTAAAACATTTTGTTAAAATAAACTCTTTTCTTTTATATTA
ATAATTAGGCTTTTAAATAAAGATGTTATTCCTTTAAAATGGTGGGCTTACCATCATTGA
AGATGTCACTCAGGTGGCCTTGCTTGATCAAAACGCCTTTTTTAAAACCAAGCTTTAAA
AACATGTTTATAATTTTCATGAAGTACATATATATTGTTCCCATAGTCTTCAGCTTTAAAA
CTATAAATATGCCAAATTTTGTATTTGCCCTACTTTAAGTAGGTTTATTGNGTTTGT
TTTTTCAAGTACTTGTTTTTCTCTGATAAGACTCAGGAATTCTGAAATGTGAAATGNCT
CAATT

Sequence 99

TABLE 1
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CNCGCGTCCGAAATCGTTGCTACCAANTATTCAAACCCCTTTGAGTTTACATACTAGTTA
CCTTAAAAATTANTNCCTGACNCTCNTGANTTTGGGNGGAAAGCCCTTGTNTCINNCTCTC
TNATGNACTCTCATGGGTTTTTTGTATGATTTGAATATNAATGTGCCTAAAGAATTTTT
GCTCTCTTAATCTATGNATACATACTTGAACAAATCATTCTTGCTTAACTGCTGATCTTT
TGTAACACTATTG

Sequence 100

GCCCCGCGTCCGGCTGGAAGCAACAGTTTGGCAGCCTGGGGTACACTCAGGTTATTCGTT
ACAACTATTATTATTTGATGTCTTTTTTAACTCAGGTCATCCACTTTTGACTGTCATC
CATGGAAGAGCTCTTATTAAGCAGGGATGAAGCAAACTTGATTGGAGTTGGGGAAAAAGAAG
CTTTTGGAAAATTCTTAAGCAGGGATGAAGCAAACTTGATTGGAGTTGGGGAAAAAGAAG
ACAGATTAGTATTTTTCATGCTGACAAAAAATAGCTGCTATGACTTTTCCCGCAACGTGG
ACAGGGGCCAAGTGAAGCTGAAGTGGTCTGTCTCGCCAGTGTCCCTTGTCTGTG
GCGATTTTGGCCCCGACCCTTCTTGGTGGGCTTAGTGGTGGCAATCTGTCTCTTCTACCA
GACTCTGACCCTCCGAGGGTCGAGGAAGCTCACAGCCGCTGCCCTGGGGCTGTCCACACA
CACATCCACTGAAA

Sequence 101

CCACGCGTCCGGGCGTCTCGGCTCTTCTGTATCTCCCTGGCCTGGTCTGCTCTCGGCTTCT
GGGCTCGCCCTTCTGTCTGTGAAATGGACTCTGGGTGAATCCAAATGGGATCGTCTCG
GGCTACGTCTGTCCCTCCGGGACTACAAGTCCCAAGGTGCTCGAGGCGACCTTGGCTCC
CCCTCCCCACCGGGACCCGCTCCCTCCAGCCCAAGTCACGTCGTCTAACCTGTTCCCAG
CTCCTGCCCCGCCCGTTCTCCGCTCCCCAAGCCGGAGCCCGAGCTGGAGGAAGCCCCCA
GGTGCCAGGATCTGCTCGGATCCGNGCCCGCTCCGGCCGGCACCATGGACAGTGAGGCAT
TCCAGAGCGCGCGGACTTTNTGGACATGAACCTTCAGTCGCTGGCCATGAAACACATGG
ATCTGAAGCAGATG

Sequence 102

CCACGCGTCCGGTCCGGGGTGAATCACGTCGCTGCGGCTGCCGACGACCCACACCCGGC
CGGCCGCTCCGCGAGACCCACCTTGGCCGCGCGGCAGGGGGCGCGCAGAGCCCCGAGGGA
GCGAGTCCCCGCGCGTGGCAGCTCGGCGGCTTCTCCCTTCCGGAGGTCCGGCTCCCGGCT
CTCCGGACCCGCTGGCGTCTCGCTCGGCGGGGCGGACGACAGCGGCGCCAGGAAT
GGCTTCCGGCGGGCAGCGGCATGGAGGAGGTGCGCGTGTGCGTGCTGACCCCTTGAAGCT
GGTCCGGGCTGGTGTGCATCTTCTGGCGCTGTGTCTGGACCTGGGGGCGGTGCTGAGCCC
GGCCTGGGTACAGCTGACCACCAGTACTACCTTGTCTGTGGGGAGTCTGCCGGA
CCCGCCAGCTTGGACATCTGGCACTGTGAGTCCACGCTCANCAANCGATTGGCAGATTG
C

Sequence 103

NCGCGTCCGAGAAATTGCAATTTTTTAATTTTAATTTAAGAGGAATTCGTGCCAGAGA
GAACTATTAAGAAAGGGGTATATCCAGTCTAAGGATTATTAGGCTCAAGTCCATGAATAG
GCTCTGGGAAGTTTGTAAACACTTGAAATTATTTGCAAATGTGTGTGTGAATGTGCTT
TACCTTANAGAGTTCATGAATTTTATTAGATTGTTGAAAGAGTTTTAGTATTAACAAAGG
AAAAACAAACCACCACCATCACATAACAAACCACAACAGTGATTTAATCTTTTACCTA
ACAATAAGTAAATTGAGGCTCTGATGGCTAAATTAATAGCCTGAGGCTACACAGTCAGTG
GCAGAGCCCAGGGTANAGAGAGAACCAGCACAAAGCCATTGTGGGAGCCGAGGGTAAAGAG
AGAGCTAGGTGTTGTACCTTAGTAAATAAATCAGAA

Sequence 104

GNGTCGCCCCGCGTCCGGAAGGTGGAGACCGCTTACCCTGATCNGGGATGTATCGGCTGC
GGGTGCGCAAGGCAGTCCAGGAGTGACCTGGGGCTGTGGAGAGCGACCCGTGGCCTTGTG
TTTCAGAGTTTACCACCTAGGATGACTTCAGTGACTAGATCAGAGATCATAGATGAAAAA
GGACCAGTGATGTCTAAGACTCATGATCATCAATTGGAATCAAGTCTCAGTCCTGTGGAA
GTGTTTGCTAAAACATCTGCCTCCCTGGAGATGAATCAAGGCGTTTCAGAGGAAAGAATT
CACCTTGGCTCTAGCCCTAAAAAAGGGGAAATTGTGATCTCAGCCACCAGGAAAGACTT
CAGTCCGAAGTCCCTTCATTTGTCTCCTCAAGAACAACTGCCAGTTATCAAGACAGGAG

TABLE 1
20/467

GCAATCCTGGCGGCGAGCAAGTATGAAAGAAACGAACCGGCGGAAGTCGCTGCATCCCAT
TCA

Sequence 105

CGTCCGCGCAGCGCTTGAATCCCGTGGCCTAACCGTCCCTCGGAAGACCGGTCCCCTCG
GGAGGCTCTGCAGTCGCGCCTGGGGTCAGGGCCGGGGGCGAATGTGGCTCGCGTTCTAGG
CCTCCCTGGGTTGGAAAAAGACTATGTTAGCAANGTGTACGCCATGCTTTTGCCAACTT
TCCAATTAAGGTTGACATTCTGCATAAGCATTTCTCTGTGAAAATGTCCTTGCCTCTT
ACAGAGGAGCAGAGGAAAAAGATTGAAGAGAATCGACAAAAGGCTCTGGCCCGCAGAGCT
GAGAAGTTATTGGCAGAACAGCATCAGAGGACTAGCTCGGGCACCTCCATTGCTGGCAAC
CCATTCCAGGCCAAGCAAGGCCCATCCCAAAATTTCCCAAGGGGAGTCTTGTAAGGCCAA
GTGAGCCATTGGTGTCAATTTCAAGCAACAGAATCTCAGTAGCTCATCTAATGCTGACCA
AAGACCTCATGATTCCACAGTTTTCANGCAANGGGAATATGGAAA

Sequence 106

CCGGCCCTATCCCTATATTGTTTGCTTGTGGGATAACCTAAAATTTTTATCCAGTTT
ACTACTAATTTGTTTTACCTGATGTATCTTCTTTCAATAATTTTATGTTACCTTCTGT
TTAGAATAATATTTGCCACAGATATTTAGGTTTAATTCTGTGTTTGAATGATTCCAATGC
CTTTCTCTACCCACTTTGAACACTTCATCCTGGAATGGTTGGCTGATGTATGTCTCTAAA
CAATTTTTTTTTTAGGAGAAGGTATGTGGGTAATGTAATTCCTAAACCTTTGCTTTTCTG
AAAAATCTTTCAATTTGCCTTTATACATGACCAGATTTACTGGGTATATAGATTTGTTGAT
GAAAAAAGGTAAAAAGAGCAACTTTTGACATCCAGAGGTTTGTCTGGCACTCACAGCTAG
CCCCGTGTTATTCTCCCTATT

Sequence 107

GCGTCCGTCTNAACCCTAAAGCTAAAAAGTCATTGTGAACCTTTNGGTCTGATGCTAAAG
AAGGGAAAACAGGTACAGGAAATCCCATGTGGATGCTTGCTTNCAGGATTTCTGCCATG
ATTCCAGAATCCCACAGCTNCAACATGATTGCAAAAAGACTCCCTGCTCATTTTNCCTCA
GCATGCACAGCGCTGTCTGTCTCAGTTGCAACTCGACAGAGCCGCATTTACTCCAGAAC
CCAATCCACACACCTGCTCATCCTGCCCCGAGAGGAGTGCCTGAAGCCAATAGCAGGGAA
CTAGAGCAGACTTGGGTGGATCTTCATTGGATATTAGGTATCTTGCCCTAGATAGGCAAG
CAGTGGCCTTACAGATGCTGACAGATGATCTGATTAGATGCACAGNTGCTGGGTGGCGTC
TGGGGCCAGTCTATTGGNCAGTTCTGGGAGNNGGGAATTTGGGCTCTGCAAAGATG

Sequence 108

CGTCCGCTCCCTGGCCCTGCTCCGGGAGCTGTCTGTTGTCTCCGCCAGCAGCCCTGTGGCT
GCAGAGCGCCAGGCCAGCTTCGCCACTCGCTGCCCTGCAGAGCTTCCTGCTGAAACC
TGTCCAGCGCATTCTCAAGTACCATCTGCTGCTGCAGGAACTAGGGAAGCACTGGGCGGA
GGGCCCAGGCACTGGGGGTGCGAGATGGTGGAGGAAGCTATTGTGTCCATGACAGCGGT
TGCCTGGTACATCAACGACATGAAGCGCAAGCAGGAGCATGCAGCGCGCCTCCAGGAAGT
GCAGCGGCGGCTGGGTGGCTGGACCGGACCAGAGCTCAGTGCTTTTGGGGAAGTGGTGT
GGAGGGCCGCGTTCCGAGGAGGCGGANGGGNNGGTTGGCCCCCGGCTACAAGGGGGT

Sequence 109

AGAATTGTGTATGCCTTGCCTATCACGGTACAGCACGAAGCCAGGCTCCTTTCTCCACCA
AAGAAGATGGAACCAGACTGGAATTCTGTCTCCAGAGAGAAACCAGCTGTTTGGGTCAA
AGACAGATGCTTCAGACTTGGGTGGGAAGGTGAAAGATGGCTATTTAGAAAGCTGGTGGC
ACGTTTTACATAAGGGAATGTCAGATGGGAGATGCTAGTTGCCATTTTAACAAAGCAGGT
AAATCGGTAAATTTAACTCTGTCCATGTTCTGTTAGAACTCAGGACAAAGGGATCCAT
GAAAAAG

Sequence 110

ACGCGTCCGCACGGAGAGAACTGGNCCTGGAGCGGGGGCGCGGGGAGGGGGGCGTCGTCN
TGGGTACAATTGCGCANGGGCAAAGGTGAGAGGTGCGCTGNCGCCGTTTTATTGAAG
ACATCGTCCAGTTCTGACCATGGAATCNCAGCCATCGGCCCTTAGTTTCCATTCCCTCTA
GNGGGCCCTTCNGAGGGNTCTACTGACGTACCTCCTTCCCTTGGTACCGGACCGGGGAAGT
GTTTTCGGGCGCGGGAGGTTCCGCATGCCAGGCCTGGCCAGGGGA

TABLE 1
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Sequence 111

CGGGCCCTTAGTCCAAGCCTTGATCGGCGACTAAGTGACGGCAGTGACTGCCGCCATGCC
GAGCTGGACGGAAGNCACTTCTGAGAAGGGCGGAAGTGTCTCGGGCTCCTTAGAGGGAGG
ACACCATATTAGTGCCAGTGGGGAAGTCACCGGTGGAATTACTTCTTTGTGGAGTTTGT
GCTGTAGCGACAATGAAAAACGAAGAGTCAACTTTTATAAAACAAAATAAAAATTAAGTC
AAATCATGCCAACCTTTATTAGATCGGCTAGCAGGGTTAACTTAATTCAAAGCCCCTGA
TGAATCGGGCCTTCATTGCACCCCCAAAGGCTCCGCCACCCTGATT

Sequence 112

CGCGTCCGGGCGCCGGTACGCCTGGTCCCCGCGTGGAGTCTTTACTCAAAACAGCTCCCG
CCTCAGGCCGAGATGAGGAGCCCTTCANAATAGCTGCTGTCTCTGGGNGGACCCGGGCGT
CCTTGGCAGCCCAGCTGNTCTGGACAAAGCCCTGCCAGTCAGGCCTCCGCTGGCAGGAAC
CATGGCAGAGGCTGGGGATGCTGCGCTATCGGTGGCCGAGTGGCTGCGGGCATTGCACCT
GGAGCAGTACACGGGGCTCTTTGAGCAGCATGGCCTGGTGTGGGCCACTGAGTGCCAAGG
CCTCAGCGACACCCGCTGATGGACATGGGCATGCTACTCCCT

Sequence 113

TGTCGACCCCGCGTCCGCGGGANGTTCATGGAAACGCAGGACACGACAGAATTGTGTNTG
CCTTGCCTATCACGGTACAGCACGAAGCCAGGCTCCTTTCTCCACCAAAGAAGATGGAAC
CAGACTGGAATTCTGNCTCCAGAGAGAAACCCAGCTGTTTGGGTCAAAGACAGATGCTTC
AGACTTGGGTGGGAAGGTGAAAGATGGNTATTTAGAAAGCTGGTGGCACGTTTTACATAN
GGGAATGTCAGATGGGAGATGCTNGTTGCCATTTTAAACAAAGCAGGTNAATCGGTNAATT
TTAAACTCTGTCCATGTTCTGTTAGAACTCATGGACAAGGATCCATGAAAAAGACCTGTG
ATGTTTCNTCTGGCGCTTTACTGGCCTGGGCACACCTACCAATCTTTTAGGATTTGACTG
GTTCCATTACATTTCT

Sequence 114

GTCGACCCCGCGTCCGTATCACTGTAATTTAAGGAAAGAAAACCTTCAGTTCTGCCTCTGG
ATACCAAGATGCCCATTTGCTCAGTTCAGACAACCTGATATTTAAATAAAGCTATGCTCCTT
ACTTACTTCTTTTATTATAAAACAAATTCCTTTGCTTTGGCTGATACTAGCTGAGTCATTG
ATCATCATTGGTACCATGATATTGTAATCTATGCTGCTATTTGGCACAAGACTGAAGTTC
ACACTACAGTAGAGAATACTATAAGATAATTTGCAATAAATACTGATAATAATAATACCA
GATATTTTAACTAATTTTTCTACCTTTATTAATAGCAATCAGCACACTTGAATGTGTAA
ATTTACAGTAACCTTAGGCAGAACTTAAGCTCCAGGCCACATTTGTATAAGAACACCAA
GTATTCAGGCATAAAGTCTGTTGTAAGCCAAAAAAA

Sequence 115

AGTTCAGTCTGCAGCAGTCCCTGCACCCACTTCCAGTTGCTTTTCATCTNTGAAAAAGA
TGAGCCCCGTAAAAGTTTTGGCATCAAGGTCCAGAATCTTCCAGTACGCTCTACAGATAC
AAGCCTTAAAGATGGCCTTTTCCATGAATTTAAGAAATTTGAAAAAGTAACTTCAGTGCA
GATACATGGAACCTTCAGAAGAGAGGTATGGTCTGGTATTCTTTCGGCAGCAAGAGGACCA
AGAAAAAGCCTTGACTGCATCAAAAGGAAAACTTTTCTTTGGCATGCAGATTGAAGTAAC
AGCATGGATAGGTCCAGAAACAGGAAAGTGAATTTGAAATTTGCCCCCTTGGATGAAAGGA
TAGATGAATTTACCCCCAAAGCAACAAGAACTCTNTTTATTGGCAACCTTGAAAAAACC

Sequence 116

CCCGCGTCCGCACCAGGCCCGAGTCTTCCCTTCATGGAGGGTGACGTGAGCAGCAAGGAT
AAGATGGGCAAAGGAGTGGATGGGACATATAAAAAAGCTCTTCAGGAAGCTGCAGCAAGG
TTTGAGGAATTAAGGCCCAAAAAGAGCTAAGACAGCTGCAGGAAGACCGAAAGAATGAC
AAGAAGCCACCACCTTATAAACATATAAAGGGTCTCCCTCTGTGACCCAGGCTAGAGTGC
ATTGCTGCAATTTTGGCTCACTGCAACCTCCGCTTCGTGGGCGCAAGTGATTCTCCTGCC
TCCTGCCTCAGTCTCCTAAGTAGCTGGGATTACAGACATGAGCCACCAACGCCTGGCTAA
TTTTGTGATTGGCAAAAAAGAGATTTTGTGACACATAAAGATGATATGAAATTCACCTT
CAATCAAGTATCCAGAAAAATTTA

Sequence 117

CCACGCGTCCGGCCCTTGCCCCTGTCNCACANGAATGGACCCACGGCCCCACCCAGCGCC

TABLE 1
22/467

GTCAGCGCCCCGGCACTGCCACCCGGGTCCGGGCCGCTGCCTGCACGTGGGATCCGTCGGG
CAGCCGGGGACAGAAGAGACCCCGCCGTTGGGACGCAGGGCAGAGCCGGCCACCTAGTCC
CTTCCAGCCAGCAGAGGCGAGGGAAGGCGTCACTGCCCCGGCGGGGAGACGGGCAGGACG
CCCTGCCCCGCACCAGCAGCCTCCGCCGGGGCGCCCTCAGCTCCCTGCTTGGCTCTGTCT
CTCCACACCCGGCAGGGCCCCGGGGTCCCCAGCCTGGGGGGGTCTGGGCAGCTGCTA
CTCAGTGCCAACCCCGTGGGGCACAGA

Sequence 118

NAGGGAGTCGACCACGCGTCCGGTGCGGAGCAAGCATCACACCATGGCGTATGAGTGTTT
CTCTGTGTAGACTCAACCTGCGCCTCGCCGTCCCCATTGCGACACCCGATGCCCGGGG
TCGCTACGGACTTAAATCTCCGCACCGCACCCCTCCACCTCAGAAACGTTCTGGATCCG
AACACTGCCCCCTGACGACCTAGAGAGATCCCGGCTCCCAGCCCACTGAGTGGCTTCAGC
CTCGCTGGTAGGTCTCTCTCCAAAGCTCTGGAACAGACTCCTGGGAGTGANGGTAGNG
GGGGAGCNGCAGGCACCGCCCCCTTTCCCAAGTCNCCGCCCACTTCATCCCTCAGGCA
CCTNCCAACTCCTGGCCTTNTCTGCACGAGGCGCCTGCCCGGGCCCCGCCTACAGGGGA
CCCAGCTCTTCTTGACGCCATTGGAAGNTGATCACCTGGGAGGTGA

Sequence 119

CACGCGTCCGGTTTTACTGCTCTTTGCCATGTGGTAAAAAGAGGCTGAGACATATTTAAG
AATCCAAGAGGATATTATGTGTCAGAATTCAGACACTGATGAGAAGTTTTTAATTGTT
CTTTTTTATTTGATTTTGAATTCAGGTGCACTCTATTCAAGTGCAAGGATATCAGAAGT
TTTTTTTTATTTAAAAAATTTTTTTTCGAGATGGAGTTTCACTCTGTTGCCAGGCTGG
AGTGCAATGGCAGCTTACTGCAACCTCCACCTCCTGGTTCAAGCGATTCTCCTGCCTCAG
CCTCCCAAGTAGCTGGGGATTACAGGCACCGCGCCAACACACCTGGGCTTATTCTAATT
TAAGTAAGAAAATGGGAAGTCTTACCCATNTTGGTCAAGGCTTGGGTCTTCGAACCTNC
TGACCTTAANGGTGATNCCACCCCANCTTTGGCCTCCCAAGCCGTGCTNGGGATTATAGG
GCATGAAGCCCACCCANGCCCGNCCAGGATTTTTATATTTAAGCCCTTCTTGCTCTTN
AAAAAAAAAAAAAGGT

Sequence 120

NGTCGCNCGCGTCCGGGAACCTACCGGTACCGGCCGCGCGCTGGTAAGTCGCCGGTGTG
GCTGCACCTACCAATCCCGTGCGCCGCGGCTGGGCCGTGCGAGAGTGCGTGTGCTTCTC
TCCTGCACGCGGTGCTTGGGCTCGGCCAGGCGGGGTCGCCGCCAGGGTTTGAGGATGGG
GGAGTAGCTACAGGAAGCGACCCCGCGATGGCAAGGTATATTTTGTGGAATGAAAAGGA
AGTATTAGAAATGAGCTGAAGACCATTACAGATTAATATTTTGGGGACAGATTTGTGA
TGCTTGATTACCCCTTGAAGTAATGTAGACAGAAGTTCTCAAATTTGCATATTACATCAA
CTGGAACCAGCCAGTGAATCTTAATGNTCACTTAAATCAGAACTTGGCNTTAANAAG
AAAATTGGGGNGTCCTGGGTTTA

Sequence 121

CCNCCCCGCGTCCGATCAATTCTGGAATTTATGGTTATAACTTCGAAACAGAAGATGGA
CTAATTTTATTTTATCTAATTTTATTGTTGGAATTTAGGAATTTACGGAAATACTAAT
TTAAATTATTTAAAAAGATCATTAGAATCAAGTAAACCAATTTTGATGGCTATGATTGAC
TCAACAAGAGCTAATTATCCAGGTAAAACAATAGATAAAATTTTGCTAAAAAGTTTTTA
GAAAAAACATTTTAAACAACAAATCCACTTCAAGAATAATTGTGCGAGCATACGATGAA
GAGATGCTTTCAATTCAAGAAATCCTTGATTTAGCTTACAAATCAAACGTAAAGGTTGCT
GTATATGGNAGAAATTATGACAATCTTTTAGAAATGAATCAACGATTAGCACAAAAACAA
AATCTTGAAATACATTATCCAGAATTTTGTATTTAGGCAAGCTAATAAATCGATAAT
TTTGAATCTTAATTACATCAACACCTGGAGCGAATTTACCAAAGATTTTTTAGAAT

Sequence 122

CGCGTCCGCGAAACTGAGAACCAGTTCTCCGAAGCCGCGGGTCTCCGGCCGGCGGGCGG
GGCGGCGGCGCAGGTGAGCAGGGCAGGGGGCAGCCGAGGGAGCGCGGGGAGCGGGGGCCG
GGGGGCCACGTACGAGGGGCTGCAGGCCAGCCGGGGCGGGACTCGCCAATCCTGCGTCC
CCAGCTCAGGACGCGGACGCTGATCCGAAGCCCCTGGCCCCGGCTGGGTGAGCACTGGGA
GAGCAGGCCCAGGTCCGCAGCCCGGGTGTGGGGCCCTCCCCAATCCAGGGAAAGGATCG

TABLE 1
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TGGAGCGGGGTGGGGAAGCTGAAAGCCATTTCTTTCCCGTGAAGAATTTTATCAGTGCAA
GTAACAAAATATT

Sequence 123

CGCGTCCGCTNAAAAAATAATACCAAAAAAAGTTTTGTAAAGACAACGCTCTCGCTGT
GTTGCCCCGCCACTGTGGCCTCCTTAGCTTCTTCCCTGGGGCCTGCTGGACCTTCCATA
CTCCAGAAACTAAAGGGGGTCCAGGACCCTGCTTNAACCCTAGGATCCCGCATCTTTTT
TTTTTTTTTTGGACGCAGGGTCTTGCTGTGTCCCTCAGGCTGGAGTGCAGTGATCACT
GCAGCCTCAAACCTCGTGGGCTNAAAGTGATTTCTTAGCCTCAGCCTTNTAAGTAGCTGGG
GACTACAGTCATACCAACATGCCAGCTAANTTCTTTTTTAATTCTGTAGAGNA
TGTTTGAGACGGCTTGGGCTNTGTTGCC

Sequence 124

CCNCGCGTCCGTGCTGATAAACTCCTTTGACCTGACGATTGCTCTAAGTCCTAATTGCC
ATATTTATATTCCCATAGTAAGAGTGTTTGGAGATAGTGTTGAGCTTTTTTGCTGGTGT
TAAAAATGCATAATGAAAGATGGCACNAGAGAGGCATATTATATCCAATTCATGAAGTTG
TTTGTTTAACAGAAAGCTTATTTAATCACTTAACATTGTTGATTTGTCTAATCACAGT
AGCGCTATTGATTAGGAGCCTGACCTTTANATGGTTGACTTGTGAGTGTATTCAATATGG
TGAAATAANGGTGTTTGATATATGGCTGCAGATTTAGAAGGTGTCATTAGCAAAGGTAT
ACGGAATAAAATANGGGTTATAGTATTCCTTACTCAAATCTGTATGTGCTAGAGCTGGC
TGGAGTCTGTTGGCATGCTCATTTGGTGTAAGGNCCGNTAAGGACTATGCT

Sequence 125

GCCCCGCGTCCGCACTTTGTATTGATAACTTAAATGGCATCAGTTTATCTTAGACATCA
GCTTGCTTTTTATCTCCTTTTTTAGTGAGTGAAATAGAGCAACTAGCATGCCTGTGTTCC
CAGCTACTTGGGAGGCTAAGGTGGGAAGATCAATTGAACCTAGGAGGTTGAGGCTATAGT
GAGCTGTGATTGCACGACTGCACTCCAGCCTGGGCAATGGAGTGAGACTCCTGTCTCTAA
AACAGCAACAACAAAAATAAAGCAACCATAGTGCATAAGGGAAATTAATGTTCCCTATA
GAAATATGTGTCTGTGATAAGTGGTATGCAAATGCTAATTATTTATAAAATAAAA
GTTCAGAACTATTCTTATCATTGCCACTTGAACAATTAAGGGTTTGCTTTATTTCTAA
TGTTTAATAGGAACCCTTTGCTTCAAACAGCCTTTGTTGAAATCATGTAAAAATTTGTTA
ATAG

Sequence 126

CNCCACGCGTCCGGCGGGCCAGCCGCGCCTCCCGTTCTCCCCTCCGCAGCGGGCGGCGGT
GGCGGAGAAGGAAGTACGACACGCACCGACCGCCCTCCCGCCCCAGCCGAAGCGGAAGCTG
TAGCCCGCTCTGGGCCGGGGCCATGGGCGCCCCGCGCCCGGGTTCATGAGGACGGAGG
CGGAGGCAGCGGGGGCCGCGCTCGAGCCCGGGGACTTTGTGCAACTGCCTGTGCCGTCA
TCCAGCAGCTCTACCACTGGGACTGTGGCCTGGCCTGCTCCAGGATGGTGCTGCGGTACC
TGGGCCAGCTGGACGACAGTGAGTTTGAGAGAGCCCTGCAGAAAGCTGCAGCTGACCAGGA
GCATCTGGACCATCGACCTGGCCTACCTGATGCACCACTTTTGGCGTGAGGCACCGCTTC
TGTTCCAGACCTGGGGTGTNGACAAGGGCTACAAGAACCAGTCCTTCTACAGGAAGCACT
TT

Sequence 127

CNCGCGTCCGCGGTGCGGTGGGCGGACGCGNGGGTTCGTCCTGGACAAGTCTGGGAGTGT
GGCAAATAACTGGATTGAAATTTATAATTTCCGNNAGCANCNGGGCGGAGAGATTGNGT
AGCCCTGAAATGAGATTATCTTTCATTGTGTTTTCTTCTCAAGCAACTATTATTTGCCA
TAACTGGAGACAGAGGCAAATCAGTCAAGGCTTGGAGGATTTAAACGTGTTANTCCA
GTAGGAGAGACATATATCCATGAAGGACTAAAGCTAGCGAATGAACAAATTCAGAAAGCA
GGAGGCTTGAAAACCTCCAGTATCATAATTGCTCTGNCAGATTGGCAAGTTTGGACGGTC
T

Sequence 128

GGAGTCACCNCGCGTCCGCCCCGCGTCCGCCCCGCGTCCGGTTAATCTTAGGCCTGAGGT
TTGGGGCCGGGTGACAAGGAAGTTAAACTCGTCCTCCCTGCCAGATTCTACCCCTTTCCG
GAGCTGAGCTCCAGCCAAACCTGTGGAGTTTTCTTGACCATTTTAGGACATGTTACTGC

TABLE 1
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TTCTGAGTTGGCTGCCCCAGCTGCTCAAACAAGACCTTTCTCCTGGGTTTCCTAGTAGTGA
AAAGGAGCAGCAGAGCAACTGAGGAGGAGGGCGGGTGGGAGGCATGGGACTGGGGCTTGG
GGAGGTCAGGCGAGACCGGGGTGAGAGCTCAGAGAAGCTCCTGTGACTTCCATGCTAAGA
TCTTGCCAGAGAACTCTGGTCAGTCCTCGGGTGTCTGGATGAAGTAAAGGAGTTAGGCAT
TTCTTCCTTTGATTCTCTGGCTTACCT

Sequence 129

CGTCCGGCCCCGCTCCGGGGCGTGGGCGTGTTCTCGGCGGGCGTGCCTGGAGGAGGAGCTGG
GTCCTTGTGCGGCTGCAGAGTCAGATGGGGCGGGGATTTGGGGCACC GGCTCCTCACCT
TCACGAGAAAGGCCCCACAGCACGTCCCCACTACCCGACGACTCACTCTTCGTGGCTTCT
CTCTCCTCCCCAAGAGCAGGGGTGGGCGTGTCTCGCGTTCCCCTGCGGGAGTCAGGAAGC
GTCCTTCTACCTACCAGTCTCCCTCTGGTGTCTGGGGACACTTCTGGGGGCCTTTC
AGGTGGTTGGCGCCGGTGCAGGGCCTGAGAGCCTGGG

Sequence 130

GCGTCCGGTGGCATCATGACTTCTGGGGCAGTAGACTGAGCAGCAACACCAGCCACAAGT
CCTACCGGCCTCTCACCGTCCTGACTTTCAGGATTAATACTACTACCTCTCGGGAGGCTTCC
ACCCCGTGGGCTTTCACGTGGTCAACATCCTCCTGCACAGTGGCATCTCTGTCTCATGG
TGGACGTCTTCTCGGTTCTGTTTGGCGGCCTGCAGTACACCAGTAAAGGCCGGAGGCTGC
ACCTCGCCCCCAGGGCGTCCCTGCTGGCCGCGCTGCTGTTTGCTGTCCATCCTGTGCACA
CCGAGTGTGTTGCTGGTGTGTCGGCCGTGCAGACCTNCTGTGTGCCCTGTTCTTCTTGT
TATCTTTCCTTGGCTACTGNAAAGCATTAGAGAAAGTAACAAGGAGGGAGCGCATTCTT
CCACCTTCTTGGGTGCTGCTGAGTATCTTCTGGGAGCAGTGGNCATGCTTGTGCAAAAG
AGCAAGGGATCACTTGTGCTGGGTTTAAAATGCCGGAATTTGACAATCTTTGGGTGATAG
GC

Sequence 131

GTCCGCTGGGGGCCCTGGGGCTCTCTGCGTCGAGAGCGCTCGAAGACCCGGGATTCTTGG
CCCGATCGCGGGCGGGGGGAGACCCAGCTCCACCCAGCTCCCGCCGGCTCGGGGAAGG
GGCGGCCCTTTAAGAGCGCGCGGCCCGCCCGCCCTCCGGGCAGGATCCGAATTCCA
GGGAGGCGGGCGGAGACGGCGGCGAGGAGGAGGCCGCGCGGGACGCATAGAGCTGC
GGCTCGGGCGGCGCCTCCTGCGGCGGCCCGGCCGGCTCCGGCCCCCGCTGGGGCAATGC
TCCCCGGG

Sequence 132

TCGCCNCGCGTCCGGGCACACACATGCCAGGCTATTTTAAGAACTACTACAACATGATA
AAGCTGTGAATATGTAGCCATGAACCAAAACAAAGTCTCTGTCCTTGTGGAACATTTGTT
CTGTCAGAGAAGACAGTGTGTTGGCTCACATTGTGGTCAGTGCTGTTGAGCAAAATAGGT
CAGAGTAAGGGGGATGGAGACTGGTGGGAGGAATGCTGCTTATCCAGGATGGGCAGGGA
GGACTCGATGGTGTGAGCACTGAAGGATGTAAGATCTGCTGCTCTGGGGAGAGGAGCAGC
ATGGAAGGAGTAGAGTGAGAGGCCATGAGGAAGGATCAGGCTTGAATCCTTTGAGCAAG
GGGGATGGGAAGAGTGACGGNAGAAAGAGGGACAGGCCACATGGCCTGGTGGCCTGTGCT
GAGGCCTTGGGCTTTTCTCAAGTGAGATGAGATGCCATTGGCCAGTTTGGGCAGTGATT
TNATCAGACTTGTTTCAGCAGGACCATNCTGCTTGGCAATGTGGAGAGCANGCTGAAG

Sequence 133

CGCCNCGCGTCCGAACAGGCCGGGCACCAAGGCGCAGGATTTCTATAATTGGCCTGATGA
ATCCTTTGATGAAATGGACAGTACACTAGCTGTTCAACAGTATATTCAACAGAACATAAG
AGCAGATTGCTCCAATATTGACAAAATCTTGAACCACCTGAAGGCCAAGATGAAGGTGT
GTGGAAGTATGAACATTTAAGGCAGTTCTGCCTTGAGCTAAATGGACTTGCTGTCAAAC
TCAGAGTGAATGCCATCCAGATACTTGCACTCAAATGACAGCAACTGAACAATGGATTTT
TCTTTGTGAGCTCATAAACTCCAAAAGAGTGTCTGCTATAGACTATACTAGACACAC
ACTTGATGGTGTGTCATGCTTCTGAATAGCAATAAATATTTTCCAGCAGGGTTAGCAT
AAAGGAATCATCTGTAGCGAACTAGGATCAGTATGCCGTAGGATTTACAGAATATTTTTC
ACATGCTTATTTTCATCATCGGCAGATATTTGGATGAATATGAAAATGAAAC

Sequence 134

TABLE 1

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CGGTCCGCGAAAGCTGGGAAGCCAGGTCTACCTGCCCCAGACGAATTGGTGTACCAGGTG
CCACAGAGCACACAAGAAGTATCAGGAGCAGGAAGGGATGGGGAATGTGATGTTTTTAAA
GAAATCCTTTGAAGATGATGCTGCTTTTTACAAAGCATCGTTTTAAAGCACATGGCCTTT
TTTTTTTAATTATTAGTGGTAGTAATATATAGAATGTATTACATAACTGTCACTGAAAGT
GGTTGGGGAAAATGTGGTGACTGAGGTACAGGAACTACTAATCTTGCCATCTTGCTTTA
AGGTGTTATGGTGGCACAGTTACTGCTCGCCTGTTAAATTTCAAATGTCCTGTTTGATAC
TACTGGAGAACACTATTTTAAATACAGAAAAGCTCCCTATAATGCACTTCAGAGAAATT
AA

Sequence 135

TGACCCACGCGTCCGGGAGTCCCCCTGCCCCCATCAAATGCTTCCTGCAATACTTTG
CACACCAGAGACTGGGCCTCCCCAGATCCAGGGGGACAGGGGTCCCTGGGGGAGTCCCCA
GGGCCAGCCCCTCCAGGCCAGCTGCACACACTTGACACTGATTTGCACAGTCTTGACAAA
ATAGGGGGTAAGAGCCCAGTGGCTGGGGTGGGCAATGGGGGTAGCCTCTGGCCTAGGGAG
TCCCCTGGCACTGCCAATGGGCACAGTCCCGAGCACACACCCCCTGGCCCTGGACCCCCA
GGCCCCTGCCCCACCAAGCGAAGGCTGCTTCCTGCTGGAGAAGCCCCAGATGTCAGCTCT
GAGGAAGAGGGGCCAGCCCCTCGGAGGCGCCGGGGATCCCTGGGGCCACCCTACTGCTGCC
AACAGTTCTGATGCCAAAGCCACACCCTTCTGGAGCCACCTGCTGCCTGGGCCCAAAGAG
CCTGTTTTGGACCCAACAGACTGCGGTCCCATGGGGCGGAGGCTGAAAGGAGCCCGTCGC
CTGAAAGCTTGAGCCCCCTTCGAAAGCCTNCGGAAGGGGCCAGGCCTGCTGAGCCCCCCC
AGT

Sequence 136

CGACCCCGCGTCCGTGAGAATTCAGCTTTGGAGTCCCGGGTGAGGGGTTTTAGATAAACC
CATCAATATCACCCACATTCTGTGACTCTTTGCATCACTCGTGTTATTTATTTATTTATT
TATATTCTGCCTTGTTCCAGAAAAGTGTTAAAGGAACAACGCTTGTTTTTGGTGTITT
CTTTTGACATTTGAAAATTTAGTACATTGTTAAATGTACTTGTTAAACAGGTAATTTTA
AAGAGAAGGAACAATTGTTTTAGTAAGTTTTCTTTTCTTTTCAATGAATTGATTCT
TCAAATTAAGTTCTTGAGAGAAGGAGAGGAAGATACAGCAGACATAGGACTGAGCCAA
GGAAGAGTCTGCCTGAGAGAGACGCTTGGCCTGTGCTTTGCTGCCATCCGTGCGGCCTTG
GCCACA

Sequence 137

TCCGATTTTTAAATCTATTGGCCGTGTTGTCCTACCTGAAGTTCTTCAACTGCCAAAAGC
ACAGCCCTTTTTCTCTGAGCTGGTGGTTCTGGCTAACACTGACAGGGGTGCTTGTTCTT
GTGCAGTGGGCATCAAGTACATGGGTGTGTTACGTACGTGCTCGTGCTGGGTGTTGCAG
CTGTCCATGCCTGGCACCTGCTTGAGAGACCAGACTTTGTCCAATGTAGGTGCTGATGTCC
AGTGCTGCATGAGGCCGGCCTGTATGGGGCAGATGCGGATGTCACAGGGGGTCTGTGTGT
TCTGTCACTTGCTCGCCGAGCAGTGGCTTTGCTGGTCATCCGGTCTGCTCTGTACTTAC
TGTTCTTCTACGTCCACTTGATTCTAGTCTTCCGCTCTGGGCCCCACGACCAA

Sequence 138

CGACCNCGCGTCCGGAAGGACCCTCTGAGCTATTTGCGGCATACGGGAGCAGCAGCTCA
GGCTCCTCGGACGAGGAGGATAACATCGAGCCGGAGGAGACGAGTCGCAGAACCCCGGAT
CCGGCGAAGTCCGGCGGGCGGCTGTAGGAACAAGGCGGAGAAGCGGCTCCCGGGACCTGAC
GAGCTGTTTAGGAGCGTGACTCGCCCGGCCCTTTCTCTACAATCCGCTCAACAAACAGATA
GACTGGGAGAGGCACGTCGTCAAGGCGCCTGAGGAGCCTCCAAAGGAATTCAAAATATGG
AAGTCAAATTATGTACCACCTCCTGAGACCTACACCACTGAGAAGAAGCCTCCGCCTCCA
GAGCTTTGACATGGCAATAAAATGGTCTAACATATATTGAGGACAATGGTGATGATGCTC
CACAGAATGCTAAAGAAAAGCTAAGGCTTNTACCA

Sequence 139

CGACCACGCGTCCGGGCTGGCGAGCCCGGCTGAGGAGCCTCTTGGGTGCGCACTTACCGCC
GCGTCCGCTCCCGGTCCCTGGCCCCCTCAGCGGCATGGCGTGCGGGGCGACGCTGAAGCGG
CCCATGGAGTTCGAGGCGGCGCTGCTGAGCCCC

Sequence 140

TABLE 1
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CGTGTCCGGTGAATGGGAGCGGAACTCACAGGACACAATGAGCCGGGTCACTGATGGCCT
TGCTTTCTAAGAATCTCACAGTGAGCCCTAGAACTCTCTACGTGGTAACACTGTGTGCCT
TTTTAGAGAAGAGCCTATCTTAGATCTTAGCCTAACGTTGGGTCTATTGTGTTGCTGGA
GAGACCAGCACTGACATTCATCTCAAAGCACATGGTATGTTTGACTCCTATGTTGACTCA
ACTACCCATCTTGACTGGGACACTCGCTTTTTTTTTTTTTTTTGGAGACGGAGTCTTGC
TCTGTCACCGGGCTGGAGTGCAGTGGCACGATCTCGGCTCGCGGCAGCCTCCGCCTCCCG
GGTTCAAGTGATTCTTCTGCCTCAGCCTCCTGAGCATGTGGAGCTCAGGCTGAAGGTGAT
GTGGCCGCCC

Sequence 141

GTCCGATTGATTCTTCTATGATGCGTGTTCAATTATACAATACACATTCTCGGAAAGGCAG
AATTATTTGCTTTTATGATTGTTTTGTGACCTAAGAAACGGTTCTTCCCCCATTTTCC
TATCCAGGCCAAAAAATATTCTCTCACGTTTTCTGTAAGAGCTTTATAAGTTCAGCTT
TTATATTGAGGTCTGTGATTCATCTTGATTATTATGTGTAGGTTGTAATAAGGAATCT
AGGTCCAGTTTTCCATGTGGATATTCAGTTATTGTGGGGCCAATTGTTGAAAAGTCTCC
CCAAAGAACTGCTTTCTATCAGAAAGATAAGATATATTAAGTGTATATCTAAGTCTG
GGTCTCTTTCTGTTCTAATGGTTGATATTTTATCCTTATGCCAGAACCACACTGTCA
TGATTGCTGTAGCTTTATAATAGTCTTGAATCAAGTTGCTTTTCAGTTTTGTATTTTCA
AAATTGCTTTCCGGTATTCTAAGTCCTTGCATTTCTGCTAAAATTTAGAAGCAGCATGTC
TACCAAAGGAAAAAAAAGCC

Sequence 142

TCCGGCGGAAGAAGGTGCGTCCGCGGCTGATCGCGGAGCTGGCCCGCCGCGTGCGCGCCC
TGCGGGAGCAACTGAACAGGCCGCGCGACTCCAGCTCTACGCGGTGGACTACGAGACCT
TGACGCGGCCGTTCTCTGGACGCCGGCTGCCGGTCCGGGCCTGGGCCGACGTGCGCCGCG
AGAGCCGCCTCTTGACGCTGCTCGGCCGCTCCCGCTCTTGGCCCTGGGCCGCTGGTCA
CGCGCAAGTCTGGCTGTGGCAGCAGCAGAGCCGTGCTACTGGCGCCTCAGCGGGTGC
GGCCCGACTACACGGCGCAGGTGCGTGCACCCCGTCCGCACCCCGCCCTGCAGCCGCT
GGTCTCCCCGCTCCCTCCTCCCTGCGAGGTTTGCCTGGCTGAGGCTCCACCTCCTGAC
CTCGGGGGCCGAGAGCTTTGCGAGCTGACCCCGCTTCTTGGCTTGCAGAACTTGGAC
CACGGGAAGGCCTGGGGCATCCTGACCTTCA

Sequence 143

CCCGCTCCGAGATCCTGTAGGTGAAGTTCTCCTGTGCTCCACAGCCACCCAGAGGAATT
CCAAAACCAGCAGTGGAGGACTTGGGGAGGACAGGAGGGAAAACATGGCGAGTTCATCAG
CTCTGTTTCCTTTATTAATAATTTCTGTAATTGGTGGTGGGAAATTGAAGAAATCAAGT
GATTGCATCAGCGCTGGAAAAAGCTGCCAGCACTTGGCAGTGGAAGAGAATATATGCTTT
ATACTGGACTTTTTGAAAAAGAGGCTGAGTTTGGCCAGATTGCCGACCAGCAATGGAAAA
ACTAATTAGGTGCCTTGCCTGTGAGCCAGACGCCAGCAGGGCTGTGGCGCATGGCTCCC
GCCGCCTCTGAAGAGGACACTTTCTAGTGAATTCAGTTCGTGCTACCCTTGAGCAGCCTG
TGCTACAGCAGGCACATTTGTGAATCTCCAGCCTGTGCCTGGCGTCNGAACTGTAGCTT
CCCAAAGAC

Sequence 144

CGCGTCCGAGTAAATCTGTTCTGCACTAAATTATATCAAAATAAATATAAATAATTATTT
CGTATACCATTOGTTATATACATTTCAAGTGTTTTTAATAATGTCAATTTCTTATATTTTA
AGGAGAACTCTAGTTATTTTTATAAATCTAATTGACTTAATTTTGTGGGAATATAAAGA
AGTGATTAAAAACCTTTGGTTTAAAGTAGTTAATCCTGAAATCAAGCTCTGTAAATATTG
TGAGGGATATGGAGAAATCCTCAAAAAGAAAGAGCTAAAGAAAATGGCAGGGATGGCAT
CTTGGGAGTAACTGAAAGTAGGAAGATGTGGATAGAAGAGTCTTATTTTAAATCACAG
GGCATATGTGCTATTTGAATTATTTGACAAAAGTATAAAAATATGGAATTATGCATTGT
GTGTGTGTGTGGTTTCATCTGTTTAAAGAAATATGTGATGGAGACTGTCCTATCATCAGGA
AATTATCCAGT

Sequence 145

GTCGACCNCGCGTCCGCGGAGACACCGACCGCGGCGGCAGCAGCAGCAGCAGCAGCGAGA

TABLE 1
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GGCAGAGGCGGCGGCGGCGGGGAGGACAGCACGGCCGAGGCTGCCAGAGGCGCCTCCTC
CACACCCCCCGCCGAGCAGCACCGGCGACAGATTTTTTAAAAAATGGATTTGGCCAACC
ATGGACTTATTCTACTGCAACAGTTAAACGCTCAGCGAGAGTTTGGTTTCCTGTGTGACT
GCACGGTTGCAATCGGCGATGTATACTTCAAGGCACACAAATCAGTTCTTGCTTCATTCT
CCAATTACTTTAA

Sequence 146

CCACGCGTCCGATCCTCCCCAAGGCAGAGGTGTGCGTGCGGAACCATGTCCAGCCCTACA
TCCCATCCATCCTGGAGGCCCTGATGGTCCCCACCAGCCAGGGCTTCACTGAGGTGCGAG
ATGTCTTCTTCAAGGAGGTACGGACATGAACCTGAACGTCATCAACGAGGGCGGCATTG
ACAAGCTGGGCGAGTACATGGAGAAGCTGTCCCGGCTGGCGTACCACCCCTGAAGATGC
AGAGCTGCTATGAGAAGATGGAGTCGCTGCGACTGGACGGGCTGCAGCAGCGATTTGATG
TGTCCAGCACGTCCGTGTTCAAGCAGCGAGCCAGATCCACATGCGGGAGCAAATGGACA
ATGCCGTGTATACGTTGAGACOCCTCCTGCACCAGGAGCTGGGGAAGGGGCCACCAAGG
AGGAGCTGTGCAAGTCCATCCAGCGGGTCTTGAGCGGGTGCTGAAGAAA

Sequence 147

NACCACGCGTCCGCCNCGCGTCCGCTTGACCCCGGTGAAGAGCGTGCGTGTGCTGAGGCC
GGAGCCGCAGACGGCTGTGGGGCCCTCGCACCCCGCCTGGGTGCCGCGCCTGCCCCGGC
CCCCGCCNCGNCCNCGCCCCGNCCNNGCTGCGGAGGGCTTGACGCCAAGGAGGANCA
TGCCCTGGCGCTGGNCGGCACAGGCGCCTTCCCGNTGGACGTGGAGTAC

Sequence 148

TCCCAAGAGCTGCANGNNNCAGCCGCGACAGCAAGAACCAGGAGCCGGCAGACCGCGG
CGGCGCGCGGCGNCGGAGGCAGGAGCAGCCTGGGCGGGACGCAGGGNCTCCGCGGGCGCAG
GAAGGCGAGCAAGAGATATNCTCTGAGAGCCAAGCAAAAGAACATTAAANGGAAAGGGAAG
GAGGAAANGAAGGCTGGATACCGGNGCAGTAAAAAAGGCACTTCCAAGAGNTGGGGGCA
CTCAACTACGCCACNAGACTCTGACCGGGTGCCCCAATCAAGCCAATGAAGAAACCTATA
ACCCGGNTTAACCTNTNATTGGCCTGCCTTCTNNNTNGGGGGGTGGGGGCCCAAGCCNC
TTAACCCCCCAACCTTCNNTTTCAAACCTATCCCAACCTTATTCNAAAANGAAGGGGANC
CTNAAGGATGGGGNTTCCCCCAAGGCNAAAAGGAAAAAAGGGGGCCCCCNGGGAAG
CCTTCNTTCTTGGGGAAAAACAAGGCAAAAAAATTGGAAGCCTGAAAACCCGGCTTCAA
AAAAAAGGGG

Sequence 149

GGCCGAAAGGGGGGCGAGGTGGTCGGGCGCGCAAGCGGAGATGGAATGGGGCCCGGGCTC
AGACTGGTCACGGGGGGAGGCTGCCGGCGTGACCGCGGAAGGCGGGGCTGGGGCTCGG
CGGGAGGCCACCCCCACAGCCGCCCGGGAGGAGCGCGCCAGCAGCTGCTGGACGCGGT
GGAGCAGCGGCAGCGGCAGCTCCTGGACACCATCGCAGCCTGCGAGGAGATGTTACGGCA
GCTGGGCCCGCGCGCCCGGAGCCGGCTGGTGGCGGGAACGTCTCANCCAAACCTGGAGC
G

Sequence 150

CACGCGTCCGGCCTGCTGTTNACCTGCGGGACCCAGGAACCTGGACTTGTCTCAAAG
TGGTTCATGGAGATGTCACCCCTACGACCTGGTGCGGATGAGCTCGATGCAGCTGGCCC
CCCAGGAGCTGGCCCGCTGGCGGGACCAGGAGGAGAAAAGGGGCCTGAATATCATTGAGC
AGCAACAGAAGGAGCCGTGCAGACTTCCAGCCTNCAAAATGACCCACAAGGGCGAAGTGG
AGATTACGCGGGACATGGACCAGACACTGACCCTGGAGGATCTGGTGGGACCGCAGATGT
TCATGGACTGCAGCCACAGGCCCTGCCCATCGCATCAGAGGACACCACGGGGCAAGCAT
GACCACCACTTCTTAGACCCCAACTGCCACATCTGCAAGGACTGG

Sequence 151

TTTTTCCTTAGAATCTTCGAGAAAAAGATGAAGGTATTATTCTCAGTTTCGAGATCAGGA
CTCCTCACCACCAGGCGGGGGCTTTAAGGTAGACACTACAGGGAATCTGATCTCAGGGTG
ATCCTCTCCCTTCACTTGCAAAAAGAGAGGAGCAGGTGGGCCACTGCTCTCTGAGATGT
TAACACCCCTCACACTCCACGGGCATGCTTTGTCACTCTGCACACCGGTGTAGCTGCAGC
TCTGTGTGAATTCAGATCTCAAGAGAAATGTAATCAAAAGTATGAGTTTCTTTCTTCT

TABLE 1

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TGGGTGCCACAGTAGGAATGAAATGATGGGGACTTTTGAAGCCCCTGGACTTGTGGCCC
CTGTAGAAGAGCAGCTTGGGCAGGGTGTGATGGCCATCTCTGTCTCTAGGGGCCCTGTGG
A

Sequence 152

TGGCGAGAGCGCTGGTGCCGAGTGAAAGATAACAAGCTCATTTTCCACAAGGACAGGACC
GACCTGAAGACCCATATTGTGTCTATTCGCTCCGTGGCTGCGAGGTGATCCCGGTTTG
GATTGTAACATCCTCTGACGTTCCGGCTGCTGCGCAACGGCCAGGAGGTTGCAGTATTG
GAGGCATCTTCTTCTGAAGACATGGGCAGGTGGATTGGGGATTTTACTCGCAGAGACGGG
GATCGTCCACAGACCCGGAGGCTCTGCACTATGACTACATTGATGTGGAAGATGTCTGCA
ANGTGTCAATCAGACAGGCCAAACAGACCTTTCTGTTTTATGAACAGGGCGTGTATAT
CTGCTAACCCATATCTAGGGGGCACCTTCAACGGTTATTGCCACCCAGCGGGACGGCA
CTTTAATATGACGATGTTTCCGTNCCATAAACCGGNTTGNTTAAAGGGTAAAA

Sequence 153

GTTTCGACCCACGGGCGTCCGCGGGACCGCCGTGGGNNNACATACTATGCGNACAGGCGC
GTTGNACACAAANGGCCATTCTGTAGCCTCACACTTGACTACACATGGGGGANTCACT
CGGATTCGGNTCTCCACGTGGNNGNTCTTTGTTCTGTACTCTACGTAGCTTTGGCTTTTG
TTTTCTCGTCGCAACAGGGCATGAGACTTCGTGACCTTNGGGGTCTGTATAGTCTTTGA
CTTACTACGTGTAGGTCTCAATACAAAGTGGGANATANTCATATCCGTCCGCGAAAAGTA
ATTCTTGAAAAATTTACCCTTGTCTCCCGCNTTATGAAACGTGAACTAAGTAACTCACT
TTGCCCTGGGGCGCCTCTNTTTAACANTGTTCTTTGNCGAAATCATCATAACCTTCAA
CTGAAAAAATGTGGTCAACAACTGACTATGGAGGTCTTAGGCTCNGTCTTAAGATCT
TTAACCTTGTTTATCGGCGCGTGC GGCGTNGTCCGAACGAAGAGACTATAACCCGCACTA
TAACNAAAACCTTTTTTAAATCCCACCACCTCGTGAGGGANGGGCCCTAAGACTGAACT
GTAGTAAGTCCTATTGATTTGCGTAGGAGGANTTAGGAAA

Sequence 154

NCGCGTCCGATAGTCTACCAGCCTTACCTGGTTGATTACACTTGTAAGAAAGATTAAA
AGCAGGCCAGTGACTCTGGTCTGCTGAACATGTGAATGTAGTGGTTTGAGCAATCTGGA
GTTTGCCCTAGTGTCAAATTCAGACTGTCCATAGTGTCCAAAACCTGAGGCAGACACTA
ATGTTAACCCCCAGCACCCCGTGATTGGAAACAAACCTAAATACGTATTGGGAACCTAAT
AGCAATTTTAAGCATTCTGATAGATTTTTGTAGGGATGGGGTCATGCCATGTGGCCAG
GCTGGTCTGAAAACCTGGCCCTCAAGTGATCTCAAGCTTTGGCCTTCTAAAGTGTGGGA
TTACAAGGTGTGAGGCATTGCACCTGGCTTAGCCGTCTTGATTTGACATTGTAATGAAAA
AGTGTGAGTCTTATTCTACCAGGGGCCCTTTTTGTCTCTTGAAAATNGAATAACCANG
GGAAGGGGGAA

Sequence 155

CCNCGCTCCGTCCATCACAGCCTCCGAAGGTGCTGGGATTACACGGCATAAGCCACTGT
GCCCAGCCTGTTTTAATAATGATATTAAGTGGGTTTGGTTGATGTGTTATTAATCAGTG
TTAATAATCGTACTTTTTTTTTTTTTTAAAGAAACCATGGGTATTCTAAATCAGGAG
TCCAAATAAAGAAAGTTCTCGGCTGTGCGTGGTGGCTAACACCTTGTAGTCCCGGCACT
TTGGGG

Sequence 156

CGCGTCCGAAAGGAGTCGCGCCGCGCCGCGCCCGCCCTCCCTCCGGTGGGCCCCGGGAGGT
AGAGAAAGTCAGTGCCACAGCCCGACCGCTGCTCTGAGCCCTGGGCACGCGGAACGGG
AGGGAGTCTGAGGGTTGGGGACCGTCTGTGAGGGAGGGGAACAGCCGCTCGAGCCTGGGG
CGGGCGGACCGGACTGGGGCCGGGGTAGGCTCTGAAAGGGCCCGGGAGAGAGGTGGCGT
TGGTCAGAACCTGAGAAACAGCCGAGAGGTTTTCCACCGAGGCCCCGCGCTTGAGGGATCT
GAAGAGGTTCTAGAAAGAGGGTGTTCCTCTTTGCGGGGTCTCACCAGAAGAGGTTCTT
GGGGGTGCGCCTTCTGAGGAGGCTGCGGCTAACAGGGCCAGAACTGCCATTGGATGTCC
AGAATCCCCTGTAGTTGATAATGTTGGGAATAAAGCTCTGCACTTTCTTTTGGCATTTC
AGTTGTTAAAAACAAATAGGA

Sequence 157

TABLE 1

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CGCGTCCGGGTGTCNAGGCCATGGGGCAGCCCTGGGCGGCTGGGAAGCACGGACGGGGCG
CCCGCGCAGCTGCCTCTCGTGCTCACCGCGCTGTGGGCCGCGGCCGTGGGCCTGGAGCTG
GCTTACGTGCTGGTGCTCGGTCCCGGGCCGCGCCGCTGGGACCCCTGGCCGGGCCTTG
CAAGCTGGCGCTGGCCGCCTTCAGCTGCTCAACCTGCTGGGCAACGTGGGGCTCTTCCT
GCGCTCGGATCCCAGCATCCGTGGCGTGATGCTGGCCGCGCGGTCTGGGCCAGGGCTG
GGCTTACTGCTACCAATGCCAAAGCCAGGTGCCGCCACGCAGCGGACACTGCTCTGCCTG
CCGCGTCTGCATCCTGCGTCGGGACCACCACTGCCGCCTGCTGGGCCGNTGCGTGGGCTT
NGGCAACTACCGGCCCTTC

Sequence 158

CGACCACGCGTCCGGGGACTCAGGCATGCACCACCACGCCCAGCTAATTTTTGTATTTT
AGTAGAGACAGGGTTTCTCCATGTTGGCCAGGCTGGTCTCGAACTCCTGACATTGCGTGA
TCCACCCGCTCGGCCTTCCAAAGTGCTGGGATTACAGGTGTGAGCCACTGTGCCAGCC
CCTTCCTGTTGAGTAAAAGGAAGAACTTCAGGGTAAGACACTGTACAGTCCCAGCATCT
GGAGAGCCGCCAGCATTACCCCTGCCTTAGGAGGTAGTCGTCTCCTCATCACTACAAGGT
ATTGAAGCCTGAGGGCCCTGGGCAGGACGATAGAGTGAGATTGCCCTGGGGACTCAGGA
AAGGAAACATGCCGTATTTNTAGGGAAGGAGCTGCTGCTGCCTCTCAGTGACTCTGGTTC
CAGGAGGGAAGAGCCGAGAGCTAGGGTTCCCTTTCATAGGGAGAAACCCAGCAGGGTTTG
GGGTGTTCT

Sequence 159

ACCACGCGTCCGAAAGGAGTCGCGCCGCGCGCCGCGCCCTCCCTCCGGTGGGCCCCGGG
AGGTAGAGAAAGTCAGTGCCACAGCCCGACCGCGCTGCTCTGAGCCCTGGGCACGCGGAA
CGGGAGGGAGTCTGAGGGTTGGGGACGTCTGTGAGGGAGGGGAACAGCCCGCTCGAGCCT
GGGGCGGCGGACCGGACTGGGGCCGGGGTAGGCTCTGGAAAGGGCCCCGGGAGAGAGGTGG
CGTTGGTCAGAACCTGAGAAACAGCCGAGAGGTTTTCCACCCGAGGCCCGCGCTTGAGGG
ATCTGAAAGAGGTTTCTAGAAAAAGGGGTGTTTCCTCTTTTCGGGGGGTCCCTCACCAA
GAAGAAGGTTCTTTGGGGGGTCGCCCTTNTTGAGGGAGGCTTGCGGNTTACAGGGCCAA
AAAANTTGCCATGGGATGTCCAAGAATCCCCTGTAATTTGATTAAATGGTGGGGAAATAA
AGCTTTGCAACTTTTTTTGCAATTTAATTTGGTTAAAAACA

Sequence 160

TCCGCTCCCTGTTTTCTTCTTTTTCTTTTTGCTTGATGCACAACGGTAGGACTTACT
TCGTAAGAAACAAAATGCCAGTATTTTCTTAAGCCATGATGTGAAACCAATGACCCTGTG
ACCACATGGCACAGAACTAAATTTTGGTCCCATGGCTGAAACTTGAGGGTGAATAAAA
GTAATGCCTGTGAAACATGATATCTATCTGGGATGGCCATTTGATCTCTAAAAGGAATTT
TGTNCACTCCACAGAACTCCTATCTATAGTAAAATTTGATTTTTT

Sequence 161

CGTCCGGAAAAATATTAACAACCTCATTTTAAGATTCAAATTAACCTAATTCCTGCATATA
TGACATTCTTACATAAGCGAACACTAAACAAAAATGGCTAGAAATGTCTTTTTCTTTCT
TTTCTCTCTTTGTTGTTTAAGGTATTAAGCACCGAATTATTACATGAGACTGGCAGATAG
CTATTAATCCTCTTACAGATTTGAGAAAGTTGATTCTCAAATATTTATGCACCTTCTCCT
TCATTGTTTTCTTAAATCTGTCCTCTTAAAAAGCTTCTTAAGAGCTCAGTTAATGCTTT
TGACTTAACTAGGAGAAAAAGGCATGATAATACAGGCAAGATGGCATTGTTAGCAATTCT
GGTAGGTGGTTTTGGAATGAATCCTAAGAGGCAAGGGGATCTTAAGGACAAGGAAGAGAA
GAGAGAGGGGGNGGGATCCCTTTGATCTCTTCTCTGGNAATCTTAAATGCNTAATTTTA
CTAAACATGTTCTCAATTCATTATAT

Sequence 162

CCCGCGTCCGGATTAATGAGTGTATGCCTAGCTCTTTCTCCAGTTTACTTTTAGACCAT
ATTGTTGTTTGTGTTGAATATCATTCCCTAGGCTATGTTGAGAGTAGAGTGGCTTCCCAT
TAGGAGAACTAATTTAGGGCATGTCTTTTGTGAATCCCGTCAGCATATTTAACAAATTC
CCAATCTAGATAATTTCTTTTATTTCTCTAGTACCCTTTGCCAGGGGCTCTACACATC
AAAGGTGTTTATGAAGTATTTGTCAAAGGAAAGAACAGTAATGACACCTAACACATAATG
AGTGATTAGTATGTTCCAGGCATTGCGTGAGCTATTTACTGTGAGTGATTTAATGTTATC

TABLE 1
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TTCCAGCAGACCTCTGAGGTAGGGTACTAGTATGATCCCCATTCGTACATGAGGAAAC
TGACACTAAGGGACATAAAATAAGTTTTTGAAGTCACAAAGTGAATAAAAGGAAGACCAG
GGTTTTAATTGGAAGCCATA

Sequence 163

TAGACTTTTGCAGTGTTAAACACAGCTTCCTTAACTCTTAGAACTGGAAGTTGTAGAGCT
CTCCTTTTGGTGCCTTTCCAGCCTTTATACACACTATTGTAGCTTTCTTAGGTTTGATAG
GTAGCGTTTCAAGTAGTTTAGCTGAGACAGNGAATGTATTAGGTTCAACATGACCTTGTG
TTTTATTTGTGTTTGCCAACAGGATGCCTATTTGTTTGAGAAAAAGATGTACTAGTGTC
ATTCTAAACTATCTCCTTTTTTAGGATTCTAAAGAAGTTAATCATCATCCTTTTGTAT
TTTACCACCATTTAGTGCCTTAAATCCTATCAAGAAAGCAGTGTTACTGCTCAATGCCCA
AATAAGACACGCGGATATTGCTATTGCTTGCTTTTGAGTTAACAGGCCNACTTTTTATAC
TTAAACCTCA

Sequence 164

GCCCCGAAGTCCCACTGTCCCTGCCGAGGCGCGCGCGCGTCCCCTGTGCCCTTGACCAC
GCCAGCCTCCGCGGAGGAGGCGATACCCCTCCCCGCGTCTCCGACAGCGAGCGGTCCGC
GTCCAGCGTGGAGGGGCGCGGAGGGGCTCTGTACGCGCGCGTGGCCCGACGCGAGGCCCG
GCCGGCCCGGGCCCGGGGCGAGATTGGGGGCTGTGCTGTGCGCATCGCCCGAGCGCAG
GAAACCGCCGCCACCTGACCCCGCCACCAAGCCTAAGGTGTCCTGGATCCACGGCAAGCA
CAGCGCCGCTGCAGCTGGCCGTGCGCCCTCACCACCGCCGCCAGGCTCCGAGGCCGCGCC
CAGCCCCAGCAAGAGGAAACGACGCCCGAGCGAACAATCGGCGCATACGGTCGAACACN
GGAAGCCCCCGGACCCGGACCCAACGCCGGGGCCCCCGG

Sequence 165

AGTCCGCCCCACGCGTCCGGTGAGTTTAGCGCTGCTGTCCGGATGGGTTGGTAGCAGACA
GGGTGGAGTAGGGTTAAGCACACTGGTCACCTTAGGATTGGTTTCCTGGTGCTGGAGAAT
GGTTAGGACACAGGCCTTGAAGGTTTTTTGAGTGTGAAATATTACTCAGCGTTTTCTGC
AGACCTCGCGGGCAATGCCGCTTCTAATTTATCCAGGCCTTCTTCTGTAGGGAGGGCCT
GTTAAGAGTTGAGCAGCCCGATTTCTGAACCCCTCTAAAAAGCTGTGGCTGATTGGTGGC
TTTTTTTTTCTTGAGAGGGGGGTGTCAAAGATTTCTTAAAAATCGTTAGTGATGTGGT
CTCGCTTA

Sequence 166

ACGCGTCCNAAAATGTGTGGTACATGGAATATTTTTATTATGCTTATTTCTGATTGCCA
GGTAGATGCCAGCCTGACATTCAAAATTATTTATCAGCCCCTAAATGTTAATATTTCC
CAAATATTTAAATCAGTAGAAGACATTTTTACTATTAAGAATAAAAAAGTTATAATATAA
AATGGATTAAATGCCAGATTATATGCTAAACAAGTCCTTTAAATTTTTAACTTAATATTT
TTAACAGATTTTTTTTTTGGAGATGCAGTTTTACTCTTGTTGCCAGGCTGGAGTGCAATG
GCACAATCTTGGCTCACTGCAACCACCACCTCCCGGGTTCATGCGATTCTCCTGC

Sequence 167

CCGTCCGCGAGGTTAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCATCTCTA
CTAAAAATACAAAAAAATTAGCCAGACATGGTGGCAGCCTCCTGTAGTCCCAGCTACTC
GGGAGGCTGAGGCAGGAGAAGGGCATGAACCTGGCAGGCGGAGCTTGCAGTGAGCCCAAG
ATGGCGTCACTGCACTCCAGCCTGAGGGACAGAGCAAGACTCTGTCTCAAAAAAAAAGA
AAAAAAGTGGCACAGATCAATTATAAATCACTGCTTCAAGGCCAGTGCTCTCACTTTGT
ACATTAATAATCTCAGGCCCAAATAAGATAAGTGATATGTCAACGTATGTTCACTTTGGT
CTTTACATGGCAGCTATAGTATACCGGAATATTATAAGCTCAGATCGTCATAGCTACATA
ACTCCTTTAGTTGGGAAGANACGCCGTAAATGCCCATCAAGANTAGCAAGTCTTGCAATT
GACT

Sequence 168

CGCGTCCNGGTAACCTGAATAAGGATTATGTGCCCCACCCTTACTCTCATTCTGCTTCC
TCTTGGGCTCAAACAGGGTATGAGTATGAAGATTTTGCCTTTAGTTCTGAACCTGAACCT
GCTTGCTATCCCTTTCTCCCCACCACTACCTTATTCTTCTGCTCCTCAAATTGCCAC
TTTGTGTTGAGGCTTCCTTCCCTACCTTATTATTCTGAAGGAAGTAGAGATCTTGCTTCT

GA AACCCCTCCTAAGAAACTGCCAGGGACAGAATAATTC AAAACAATT CATGGGAGTT
TACTACCTAAGTTGCTTCTAGGGCATATGTATACCATACTAGTAGTCTAGATTCTGG
Sequence 169
AGGGAGTCGCCCCCGCGTGCCGACAGGATCTATGGATGGAAGAAGATGAAAACAAACACA
CAGCCATAAAGGTAATTGTTTTCTGGCCAACATCTTTCTACTGATGCTTTGTTTTGATTGT
ATGTTGCTGTTTATATTTTCTCAAACCTTGAGGCTCTATTTTATGAAATGTTGAATATAAA
TACATTGTATTTAACTTGAAAAATTCCTGGAAATATACCTGATAATTACCACCTGAGGAA
TCGNTTTATTTTATGAAAGTAACAGCGTGATGAATACTGTAATTACAAAAGAAAATTAGT
ACTCACTGACTTATACCCTGTTTTTTTTTTTTTTTTGGTTTGGTTTTTTTTGGTTTTGN
TTTAGNGACA
Sequence 170
GGAGTCGNCCCACGCGTGCCGCTGGCCAGCAGACCCTGCAGCAGTCATTGGTGGTTCTGT
CTTTCCCTAACCCCTTATGNGCTGGAGGACAGAGGAGCCACCTCTTCTCACTGGTTGATAC
TCTGTTCCCTAAGACCTCAGGTTACCCAGTGTAGCCTGCTGTGACCCTTCTGCTTCATTTT
CTGCCAAGTGATACAGAACCTTCGTTCTGCTGCTTTGGGGACAGGTGATCCTAGCCCCAG
CTTAGGGCCAGTGCTCTGTGCCACTCTGGAGAAATAGGGAAAAGATAGGGGTGGCTCAGT
ACAGCAGCCCTGTGAAAGTCAAGGCCAGAGCTTTTCTTTTTTAATTTTTTATTATTATT
ATTATTATT
Sequence 171
TTTAGGGAGCCGACCCACGCGTGCCGCTTGCCAAACCTCCGGGGA CTGT CAGAGGAGGAGA
GGAGCGAGAGGCTATGCTTCGCTCCCGCATTGAAGAGCAGTCCCAGCTCATCTGCATCC
TGAAGCGGAGGTCAGATGAGGCCCTGGAGCGCTGCCAGATCCTAGAGCTGCTCAATGCAG
AGCTGGAGGAGAAGATGATGCAGGAGGCTGAGAAGCTCAAGGCCCAGGGTGAGTACAGTC
GGAACTAGAGGAACGCTTTATGACCCTAGCAGCCAACCACGAGTTGATGCTCCGCTTCA
AGGATGAATACAAGAGTGAGAACATCAAGCTGAGGGAGGAGAATGAGAAGCTGAGGCTGG
AGAATAGCAGCCTCT
Sequence 172
CCACGCGTGCCGCTTAGCCGCTGCCAGAGTCCATATGTTCTGGAACCCTTGACTCCTAGA
GTTCAGAACCCAGCCAACTTG CAGTTTT CAGAATGTTCAAGAACTTCTGACACTCAGAG
TTGCAGAACCTCCTGGTCCCTGCAGATTCTTGAAATCAGAATATGGTGGTTGNAAAGAA
TCTTGTGGCTGGGCGTGGTGGCTCACGCCTGTAATCC CAGCACTCTGGGAGGCCGAGGCG
GGCAGATCGCCTGAGGT CAGGAGTTTGAGACCAGCCTGGCCAACATGGCGAAATCCCGTC
TCTACTGAAGATAACAAAAATTAGCCGGTCATGGTGGCGCCCGTG CCTGTAATCC CAGCT
CGGCAGGGCCGAGGCAGGAGAATCGCTTGAACCCGGGAGGCAAGAGGTTTGCAAGTGAGC
CNAAGATCGAGCCACTGCACTCCACCTTGGGTGACCAGAGTCTTAAAAAAAAAAAAAAAA
AAGG
Sequence 173
CGTNCGGTGAATATTCAGTAAGCTAATTA AAATTTGTAAGTAAGATTTCTTATTA AAAA
AACTATTA AAATAAGANGAAGCCCGTTNAAATAATNATTAGAGNNGGAAAAAAGAAGATG
ACTATCNAAATTACAGCACTTTTTTTCAGCTATACATAAAGGCCTTTTCANT
Sequence 174
CGTCCGGTGACCCATTAAGTATATTT CGTGACCCANAGTTTGAAAGAGATTATAGGTGTA
GCTTTGCTAGTTTGTAATTGATATAGAACAGTGACTATCAGGGAAGNTGAAGAACGGCNA
ATTGAATGTA AATCATGTCTGGATGGTGAAGATTCTAAGAATGCANCTAGGGAAAGGGCT
GCAAAAAGAAGGTGGCAGACTAATGTAGAATGGTGCAACCAGATGAAGACATGGGTGGCT
TTAGGAATTC AAAAGTGGCCGTGAAGGCCAGGCACGGTGGCCACGCCTGTAATNCTAGC
ACTTTGGGAGGCCAAGGTGGGTGGATTGCTGAGCTCGGGAGTTCGAGACCAGCCTGACCA
ACCAGGTGAAACACCATCCCTACAAAACAT
Sequence 175
GGCGGCGGCGGCGGCGGCGGCGGCGGCGGACCCAGCGGGCCAGGTGGGGACGGCGCGTNGCGGG
TGCGGGAGATGCCGTGCGGGACTGGGGGCCACNTTGAGCCGCCCGNCTCGTCCCGCGCTTC

TABLE 1
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TGTGGGAAGGATGTGCGCGCGGATGGCCGGTCGCACAACAGCGGCCCTCGGGGGCCCTA
CGGCCCCCTGGCTCTGCCTCCTGGTGGCCCTCGCCCTGGACGTCGTGAGAGTGGAAGTGTGG
CCAGGCTCCCCTGGACCCTGTC

Sequence 176

GAGCTGGCTGGTGTGTTGAGCTGTGGCAGAAGCACCTGGGGCTCCAGGGAAGCANGCTGGG
AACTGCAGGACCTTGCTCAGCCAGGAGCACTTCCCCCTCCTTGAGGCAGGAATACTGAGG
TGCCTCCCCACAGATGGAGAANGTGGAGAGGAGGATGGGCCTCAGGAGCATCTCAAGCCC
CAGTAGCAGGANAAAGAAAGAAAGAGATGCCTGGTTTTACAGACTGGTTCCTGTGGCTG
GGATGACTGCATCCTTTTTTTTTTTTTTTGAGACGGAGTTTTTGCCTTTGTGCCCCAGG
CTGGAGTGCAATGGGGTGATCTCGGATCACCGGAACCTCCGCCTCCNGGATTCAAGCAAT
TNTCCCGCCTCAGCCTCCCGAGTAGCTGGGATTACAGGCACGCACCTCCACCGTNCGGCT
AATTTTGTA

Sequence 177

CCTTGTNAGGGGACACAAAGAAAAATTGAATAAACTGTATGATTAAAAGATTATCGGGA
GAGTTACCTCCCGATATAAAAGGAAGGATTTACAGAATGTGACCTAAGGTCTGGCGTAAA
TGTGCACCGGAACCGAGAAGGCCCGGATTGTCATGGACGATGAGATACACCGGAATATCA
TGGACATATTCTTTAAAGCGCCCTTTATCTTCAAATGCGGCACGGAACCGGAGGCTTTG
AAGAACTCAAGGAAGCGCGGCACGATACCGCCCGCAATAAACACGCGCCAAATGTCCCG
AGATTGAGCGCCAGATTGCCGCCAAAACGGCCCATATGACGCAAAACAGCGACAATGCG
CGGCGGCAATCGGTGCAAGCTGTCAGCCAGCGCCGCGTTGCGTAATATCTT

Sequence 178

CACGCGTCCGACCGGAAATGCTGACCTGACCTTTGACCAAGTACGNCGGTGGGGGGGGG
GGACAAGTGGGGTGGTGGTATTAAGTGGCTCCGGTGGGTCTTCAAGCCCCAGGAACCCTC
CAAGGGGGAACAAATGGAGGGCCCTAACGCAAGAAGCTTCAATCGGTCCCTTGGACTGG
GCTTCTTTCGGTGGGTGGTGGGTATGGCCCTGGGCTGGCCTTTNCCTNAATCTTCTT
CCCTNCCTGGGGGCAATCTGGCTGGGTGGCCAAGTGGCTTGGCCCGGCAACAACTTTGGC
TGGCTGGCTTACGGTCAANGGGTGGCCCTGGCTTGGCCCAAGAACAAGGTGGCNTTGC
TTTGCCCCCGGAAGGGCCCCCTNGTAATTGCCCCCGGGCCCAAAAAGCCAAGCCACC
TTCAAGGGTGGTTTCCCAAGCATTTTTAATTGCCCCCAAGCAACCCTTAATTGCCCAA
CCCTTGTTCTTCCCGGGCCCAAAAGAACCCCCNAACCCCCCAACCAAGCTTATTGGA
ATTTTCCCAAATGGGGGCCCTTGGCCCTTACAAAACCGGGGTTTACCCCTTTGGGG
AGGGGAATTAACCCCTGGGGAAGGAAACCGGTTTTGGACCANGGGGAAGGTAAGGCTTT
AAANCCTTGGGGTNGGGGCCCAAAAGGGCTTCCCCTAAATTGTTAACCCCTTGGCNTT
TT

Sequence 179

CGTCCGGAAGAACTGTTTCATCTACTCACTGTAGTGCCCTCCTTGAAATGTGTGTTTGTTC
TTCAACTAACAAATTTTGGGGATCCCTGTAGTAAACACTGTATGAATTTACACAGTCTG
GCCATCAAGAAAGATCACGGAGTATATTCTAGATGGGGAGGCTACTAAGTGAATAGGAAT
CACCACGCTGGGCTGTTTATTAGGTACAGTAATAAACATAAGTACTGGTTGCAAAAANAAA
ANANAAAAANAAAAA

Sequence 180

CCNCCGCGTCCGAAAAGACAAGACAGCATACTGTATTTTCTCTTAAAATTCAATGTTA
CAATTAATGATTGTTNTCTGAGAATAAGTTAGCTTCAGCTTTCTAATCGATGTGTTCCC
ACATCTACAAATTGATATGAAAAATTATTTGAAATGCACACTGCAAAATGGTGAGAATA
TGAAAGTTACCTGGGAATTAATCAGAACTGTCTCCATATGACTATTTCCAAGTCACAAT
CATAACTTTCTTAATAGCAATGGTTATATATGTGGCCAGATAGTATTCAGTTTCACAGTA
ATGTCTCGGTACATAAAGATAGCANAGCATAGACATAGTACAACAATTTATTATTTCTG
CTGATTGCCAAATGTGCATAAACTATAAAGATATATTTTCCAGCCCAGGTGACAGAGAC
CCTGTCTCCNTTTTNAAAANCTTCATGNTAAAGGTGCGGCCGCTAGACTAG

Sequence 181

CGCGTCCGCTAATCAACTTTTAAAAATAATGTTTTACGGCCGGGCGCGGTGGCTCACGCC

TABLE 1
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TGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGGAGATCGAGA
CCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCCGGC
GTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGATTTTTTATTTTTTGAAC
TTTTACAGAGAAGGGGGGTCTCCCTATGTTGCCAGGTTGGTCTCAAACGTTTGGGCTC
AAGTGATCCTTCTACCAAGAGTGCTGGGGATTATAGGCATGAGCTGCTGTGACCGGCC
AAAATCAAATTTCAAACCTAAAAAATTCTCAGATAATTAATGAACCTACGTGAATTAAT
CTACAAATTCAGTTTGAAAAACCTAAAGATAAACAAGTCAATGTGGGAAACTTAA
AAGTANGTTGGTATTTAGGTTATTGGTTAAAATGGGGGACCGACTGGCATACACAGTCCT
AAATATTTAAGTCTTAAG

Sequence 182

CCCTATCTTNCGGTACTGGTGGGCCAAATTCCTGGGACCAGGTCAAGGTGGGCTGCCTCA
GTAAGAAGGAAGGACTGGAGAGTGCCCATTTAGAGGAGCAGGCTGGTGGGGGCCAGCCA
GAAAGTAGTTCCCTTTGGGGGGAAGATGTTGGACCTTTATTATTTGTGGTAACCAGCCGA
GGCTGGTTGTCAGGACAGCAGGTGAGCCACTTTAGGGAAGAAAGTGCAGGGGTGGGTGGA
TGCCAGATTACCAAGGCCAGCCACCCTGATGGGGTAGGGTCTGGTTATCTGTGTTCAAG
AAGCAAATCCCACCCAGCCCCAGCACTAGCTCTCTATGTATGTATTTCCCTGTACAAT
GTTTTATAAAAGAGATCATTATTTAAAAAANA

Sequence 183

TCGTCCATTTACCTCACTTATGGGGTAAAAGGTCACTTCAAGTAAGGTTAAAGGTTTTCC
CTGGCAAAGGACCTAACCAGAGCCCCNAAGGGGGGAAAAAAGGAGGTACCTTTGGGGA
GGTACCATGGCCCNNTTTGGTCTGGCCCNNTGGGCNCTTCAACAACAAAGGAATATTT
ACCAGGCCCTTTGGAGGCCTTTGGATAATTTCTTAAGAAATTTGGTTACCAGGAAGAAT
TAGGCTTCNTNGGNAAAAAGGAAAAATTAGGACCTAGGAAAGGGAATTAAGGGGGNAA
GGGGAAATCAATTAAGCNNTAATGGAAAGGGGGTTTTACTTCTGGCAATCAAGAACCGGC
TTTTCNNTAAGTTTCNTAATGGAACCTTAACCGGTNCCTAATANGGGCTNGTAAANGGG
GTTCTCNTGGCGGTGGNAAACCACCTTCTTTTTCTTNGGGCCCTTCCCTTTCTGGNCC
CCCAATTTNCCCTTCTTTNAAACCCTCAAAGTTGGCCCTTGGAGGGTTTTAATTAATT
CCCCCTTGGTGGCCANTTCCCTTGGGGGGCCAATTGGGTTTCAATTTCCANCAATTANTG
GNAAAAACCAAANTCCAAGGGGAAGGGACCCCTTNGGGCTTAANTTTTTCTTTTAAAT
CTTCTGGGAATTTNGGATNGGGGGAAAAAATAAATTAATTAATTTCTTTTGGGGCG
CCCTTGGCCAATNGGGGGGAAAAAATAATTTNGGNTTTTNGGGGGGGGGGNTTTGGGGA
ATANCCTTACCAAGGAACCCCTTCTTGGATNCCTTTGGGGGTCTTTTCAAAAAAT

Sequence 184

GCGTCCGGTTGTAGTTTCCCTTCCATTCTTGGTGGCCCTGGAAGCTTCTAGGCACAA
GTGTGCCACCCTGATTATTCNACCCTCCATCCAACCTTTCTCTCTGTGGGTGTCTG
CACCACAAGCTGCCTACCCTCCAGGTGCCTCAATGGTCCGGCCACCAGTTGTGCCTCGGC
GCCCCCGGCCACATCAGCAAGTGTCAGGCAGGCCTCCACCCAGGTGCCACGCACGGTG
CCTCATACCCAGAGAGTAGCCAACATTGGTACTCAGACCACAGGACCCAGTGGGGTAGGA
TGCTGTACACCAGGCCGGCGCTCCTGCCGTGCAAATGTTCTCAAGCAGCACATAAGCA
CCTATCGGGTCCAGGAGCCGGCTTGTGCACATNCCAGGACAGGAGCCCCTGACCGCGTCC
ATGCTGGCTGCGGCGCCCTGCATGAGCAAAAGCAGATGATTGGGGAGCGTCTTACCCC
CTTATCCATGATGTCCACA

Sequence 185

GTCGCCCCGCGTCCGGGCATTTGTATTTCAACAATTGTTCTCAAATTTAGAAAAGAGAC
ATCGCAAGATGGTGAAATAGGAAGCCCTGGGCCCTCCTTCCCTCCACAAACACACTGATT
TGACAACAGTTCATGGACAGATTCCTTTATAAGAAACCAAGAAACTGTTAAGAGGCTCT
TATACCCAGGTGAGTGCAAATCATCCACATCAAAGATAGCTGGGAAGTTCAAGACACC
TTCTTTCCGTAATTTCTAAACTGGCACAGTACTATATGATTGAGATGAATCTCCCCACAT
CCAAGCTTCTGCTGGGGAGGAGAGGGGAGGGTATACCATTATGTCCAATGTTCCAACCTC
CTCTAGGAGCTACCCAGGTAGGAGGTGGGTCCAGCTCTGTCAGGCTTGTCTTAAGAGCAC
TGATTGAGGGTCTGGTATTCTCTAAGTGGCCAGGACCATAAGAGCAGTGGATGGTGCTG

TABLE 1

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GGGNTNNGNNGTGGGTTACCCATAACCCCCTGGTTTTTGG

Sequence 186

TCCGAAGCAGTAAAAATAGTGTTTGACTCCATTGACAACCTAGAGGCGGCTCCTCATGAT
ATCGGCTACGTCAAACAGGCCATGTTCCACTATTTCCAGGTGCCAGATCGGCTAGGGATA.
CTCACTCACCTGTATAGGGACTTTGATAAATGCACGTTTGCTGGGTTTTGCCGGAAAATT
GCAGAATGTGCTCANCAGGGAGACCCCTTTCCCGCTATATCTTCAGGAAGGCTGGGGAG
ATGCTGGGCAGACACATCGTAGCAGTGTTGCCGAGATTGACCCGGTCTTGTTCCAGGGC
AAGATTGGAAGTCCCCATCCTGTGCGTGGGCTCTGTGTGGGAAGAGCTGGGAGCTGCTGAA
GGAAGGGTTTTCTTCTGGCGCTGACCCAGGGCAGAGAGATCCAGGCTCAAACTTCTTCT
CCAGCTTCACCCTGATGAAGCTGAGGCACTCCTCCGCTCTGGGTGGGGCCAGGCCTAAGG
GGCCAG

Sequence 187

CGTCCGCGTCGCTCCCCTGCTCGGGGTGCTAGTGTCCGCTCTGCTCGGCCGCGGGCTC
CCGGAGGACTGCAGGCAGGATGACCGCAAAAACACGGGTGATTGGTGAATGGAAGTTGCT
ATGGGCCTCTAAGGGCCATCCCAAGCCCAACCCAACGTTAAACGGTCCACAATCCACCAA
GGAAGTCAAGCTTTTTGACACAAACTGCTGAAAAGCTGGGAGGGTTTCTTCTGAAAGAAAG
TTTTTTTTTCAACCCTGGGGGACACTGGTGCCCTTTCCACAAGCCAGGGAATTGGGTTT
ATGAAGCAAGCTTGGCTCTAAGGGGGGTGACCTCAAGATATTTGCTGGGGGGTTGTGAGG
TTTGGTGGTTCTTGGGAAGTGTGTCTCAAGCTTTGGGGGCCCTGGAAGTGTGCTTGAAGT
GCCCTCAGGCCTGTGCCCTTCTGGGGCCGGGGGTCTTGTGGGTGNATNCGCAAGCANGGA
AGCCTGGGGGCCATTGGTCCATTNAAGAAGGCACCCCGGGGCCAAACCTTGCTTGGCTAT
ANTATTCAAGCCTGCTTCAACCCNTGGGCAGGCTTT

Sequence 188

TCGACCNCGCGTCCGGCTTCGACGCGCTTCCCTAACATCGAGAAGGTGTCCAAGATCACGT
CTCCCGTGCTCATCATCCACGGCACGGAGGACGAGGTGATCGACTTCTCGCACGGGCTGG
CGCTCTACGACGCTGCCCAAGGCGGTGGAGCCGCTGTGGGTGGAGGGCGCCGGGCACA
ACGACATCGAGCTCTACAGCCAGTACCTGGAGCGCCTGCGTCGCTTCATCTCCAGGAGC
TGCCAGCCAGCGCGCCTAGCGGCGGCCCAACCGGCCGGACCTCAGCAATAAGGCGGCC
CCCGGACCTCACCCCGCGCCGGCCCCCACCAGGGGCTGCATGTGGACCCCGCGGCGGC
CCAGGGGACCCCGCCCCGACCCAGGGGCTGTGGACGATGTACAGGCAACAGAGCTACCGC
ACTCCTTCTCTTTTGAAGCAAGAAGAAAATACGTGAAAACGGGAAATTAAGATTTAAA
AATTTTTTNNNNNTNNANAAAAANNAAGTGCGGC

Sequence 189

CGCGTCCGAAGCCTTTTGTCTCAGAGAATTTATTGTCCTGACAGCAGAGGCCGATGGTGG
GATCGACTGGCCCTTAATTTACACCAGCACTTGAAGCCGCTGGAACCCGACTATCAAGT
GCATCACAGAGGGGCTGGCGGATCCCGGAAGTCAGAACGGGACACCGNCTTTCACTGTAT
CAGCGAGCCGTGCGCCTGCGAGAGTCTCCGAGCTGTAAAAAGTTCAAGCACCTCTTCCAG
CAGCTCCCAGAAATGGGCTGTGCAAGATGTGAAACACGTGACCATCACAGGCAGGCTGTG
CCCACAGCGTGGGGATGTGCAAGTCTGTGTTTGTGATGGAGGCCCGGGGAGGCCCGCTG
ACCCACACCGGTCTGTGCTCTGTGGAGGAGCTGGCACTGGCCATTACAGACGCAAGC
GGTTTTGACCAGGGGATTATGGCGAAAGGGTCCACCTTCAGCACCTTGTATGGCCTTC
TTNCTGTGGGGACATCATCTTCATNGGATGGGATTCCCGGATGTCTTCAGAAACGCCTGT
CANGCATTNCCCCTGG

Sequence 190

CNACACATGCGGAATCATAGGCCTGCAAAGCTCCTGCTATTTCACTATAACTCTGCCATGC
CTTAGGCACTTCTTAACCTAGAATTCTGAGTGAAGGACAACAATAACTAATACTTTTGTAT
TCAGGTATTACAAAGAAGTTAAGAGTTCATAAGGCACCTAAGTAAAGTCACATTGGTTAA
GAGTACATGTCTCCAGATACTTTACATTTGCAAAGNAATTGCATTTCTGNATCTATGGT
CTGTAAATAAAATTGAAGAGTTGNGAGAATAAAAGCATGTTGTCTTTGATAAATTGTTTT
TACAAAACAGGCACAAGAGAGGCTTGAAGGGTCTTGCTATCTTTTAACCTATTTTATAA
TCTTTGCTGCATAAGAAACAAATATGCTTATTTACATTCTATACTTAACATATTATCAA

TABLE 1
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ACTTTTATTCTGAAGATAATACACATGAAGGCTTTAACTTTAATCTTCAATATATTTTT
TAATCTCCCTGATGAATTAGGGAAATAAATATTGGG

Sequence 191

TCTCCCCCTCACCCCTCCTTTTTTTTTTTTTTTTTGTTTTTCTTAAAAGCATTTAGCTGG
GTGCAGTGACACATGCTTGTAAATCCCAGCTATTGAGGAGGCTGAGGTAGGAGGATTGCTT
GAGTCCAGGAATTTGAGGCCAGCCTGGGGAACATAGCAAGAGCCTATCTTAAAAAAAAAA
AAAAAAGCATTTC AATTATTTTAAATTTNTAATTACAAAACAATTCTTTCCTGTCTTAG
TTTAGTTTACTTTTTACTCACAAAGTTCCTGGAAAGTAGTTATTACTCAATAATTGAATG
CATGAGTGTCAACTGCAAAATCTATGCATTATGTAGNGATTGAATCAATTAGTCTTTNT
TGATACTCCAAAATTACCCTTTTCGAGNGTCTTATCANAAATTTGATAAATCGGAACT
T

Sequence 192

TCCGCCCCGTGAGGGGCAGCTGTGGTGTGGTGTGATGATGCTGGGATAGGCACTCAGATG
GTTGAGTCTGAGTTTGGCTCTGATATTATCAACTGCATGGGCAGCTGTGGTGTGGTGT
GATGATGCTGGGATAGGCACTCAGATGGTTGAGTCTGAGTTTGGCTCTGATATTATATCA
ACTGCATGGGCAGCTGTGGTGTGGTGTGATGATGCTGGGATAGGCACTCAGATGGTTGAG
TCTGAGTTTGGCTCTGATATTATCAACTGCATGGGCAGCTGTGGTGTGGTGTGATGAT
GCTGGGATAGGCACTCAGATGGTTGAGTCTGAGTTTGGCTCTGATATTATATCAACCGCA
TCATTTTGGGGAAGACACAATTTCTCAGAATTTATTTAAGTTGTA AAAATAA

Sequence 193

ACACATTGCGGCACCGGGCTGGGCCTGGCCATCGTCAAGCATGTACTGCTGCGCCACCGC
GCGCGCTTGAAATCAGCATGTGTGCTGGGCCATGGCAGTACGTTACCTGCCATTTTCC
GCCAGCTCAGGTGACGCGCACACGGCTGGTTCGGGAATGATGAATAACCTGAAGTGACGAC
GACCCAATGTGGGAGCTGCTGATACTTTGCTGTCTCCGCCCAGCAGTGGGCCTAGGCAA
GCGCCCCATCAGCCGCTACATTGGCCGACTTGCGCCTGCCTTTCAGGCCCTCTCGTCACC
CCTTATTGAACACACGGAACCTGCAAAACCCCATCATGGACCCTTCCCCTGGTATTACCC
TCGCTACACTCTTCGCCGATTTCCGGCATGATTCTTTTTGCACTGATCCTGGTACTGCTCA
ACGGTTTCTTCGTTGCGGCGGAATTTGCCATGGTCAAACCTGCGCTCCACCCGGGTGAGG
CCATTGCCACACCAACGGGCTGGCGCGGGCAGATCCTGCGCACCGTACACAGCCAGCTC
GACGCCTACCTGTCCGGCTGGCAGCTGGGGTATTACCCTCGCCTTCTGGGTTTGGGTTG

Sequence 194

TGAAATCTCCTAATACACTGNGTTTTTATTGTTATGTATTCTATGTTTTAAAGCTCCTCA
AGGTATTGTTATTCTTTTGATAATCAGTGTTTGTGGAGCTGTCTGTAAATTTTCCTC
TTTTTTGCTCTTTATTTTTCTTTCAACTCAGACCTTCCAAAATGGGATTATTTTTCTTT
TTTCTTTAGAGACATTTGCTTGATAACAGAATTTAATTTGGCGGCTATTTATTTTTTTC
AGCACACTGCAGGTATTA AACTACTTGGCTTCATTGTTGGTTTTGAAAAATCAGCTGTTT
TAATGTTGCTCTTTGAATATAATCTGCCTTTTTCTGTACTTGCTTGNCTTTAAGTTTTTT
GTT

Sequence 195

CGCTCCCTGGTTTCTTGTCTCATGAANAAGAAAAAATCCTAACTGTTCTTGATGATCTTT
AAGGCTCANAATGATCTGGACAGAGGTATTTACCTTGAAGCTCATAAAGCATAGGCCTTT
CTCACTTGACAGAGTATCTTTCTGAAGCTGGACTAAATTGGTTAAGGCCACTGTACTTTTC
CACTTTGTCTTTCTTCTGTACACACCCTATCCTTTCAGGCTGTGTTGGGATGGACAAA
AGCAGTTCTGGAGTCTTAAGGAGAAGATGAGTGGGATATGTTTCTGTGACCTGCAGTCAT
TTTAAAGTTTAGCTGTTGCTAGCTGACTCCATGTAAGAATACCTTCCAGGAATTTGATGG
CTGTGCACTCTGGCAGTGCAACTGGCATGGT

Sequence 196

CNCGCGTCCGGCCCTGATTGATGAAGCACAGTCAGTAAATCATCTCTTCATTCCCCAGTT
CTTAAGCCAACATCAGCAACACTGAGAGAACATTAGATTAAAGGCAGGTATAGAAGAGAG
ACTTAGGGTAACAAGTTAGTGGGTGCCTGAAGGCATGTGGGAAGAGATGTGGTAAAGGTG

TABLE 1
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TGCACACTATTCTTACGTGACTTAAAATGTCAAGGGGCTTGGTGTGGTGGCTCATGACT
GTAAACTAGAGCACTTTGGAAGGCCAAAAGCTGGAGGATAGCTTGAGGTGAGAAGTTCAA
GGCCAACTTGGGCAATATGGCAAGACTGTGTCTCTACCAAAAAAAAAAAAAAAAAAAAA

Sequence 197

CCGTCCGGAGAGGCTGTTNTTGATNGATACTCCAGAATAGACACGGGGCCCTTGAAAAGCT
TGTACCTTTGGGAAAAGTAGACCAGGAAAATCTCAAGCCAGAGAAGGACTATGAAGCTT
CTTTTCCAGTTACACATGGAAATAAGAGGTCTTGCATGAGAAACCTAAATCAACCCCTT
TNTNTTAAAGCAGGTTTTGGAGTCTAAATTTATACTAATTGCATTGTGGAGCAGGTCTAG
CCAAGAAATTAACATGACAATCAGTCTCTAATCTGTCTGTCTATCTACTTACTTACCTAC
CAGTCAGGCCAAAGAGATTCCACAAAGTAGGTTAAAAAAGTAAAGTCTGATAACAAATA
ATTAGTAAGAATGAATGAATAAATAAATAGCACAAAGGAACACTCTACCACAAGGAGGAG
TACTCATCATCAAATGAGAGAATACCCTAAGAAAGTGAAGATAATGCCAGCAATCTGAA
AGATATTTTACCNAACGTGTTTAAAATGNTTAGGTTATTAATAAAAAAAAAAAAAA

Sequence 198

CTAAGCTGTTATTTTCCCTAAAAATGCTTCCCTTGCACTTATACTTATTAAGAATAGATA
ATAGCTAACATCTATCCACTGCCTTTGATTCTAGAGGCCCTCACGAATTGCCTCATTAGG
TCTCCGACAGTATGGTACAACCTACTCTTTATATTTTACAGATGAAGAACTGAGGCTGGA
CTGNTACCTTTTTGCTACACATCCTAATG

Sequence 199

AACCTGTTTTGTTAGATGTGAATCTAGGAAATACAATATATTTTTAATGTAAAAGNACTC
TTGCTTTACTTGTAACCTGATTTTCGTTTTTTTCCCTCAGGCCATCAAGCCCTGTCGTC
CTATGACCAACAATGCTGGCAGACTTTTCCACTACCGGATCACAGTCTCCCCGCCTACGA
ACTTTTTAACTGACAGGCCAACTGTTATAGAATACGATGATCACGAAGTATATCTTTGAA
GGATTTTCTATGTTTGCACATGCCCCCTGACCAATATTCCTACTGTGTAAAGTAATTAGA
TTCAACATAGACTACACCGATTCAAT

Sequence 200

AATGCAAGAACATCTGGATNAAATGGCTTTCTAGATGAGAATGGTGCATTTTTTAATGG
CTATTCTGGTAGAAAGGACAACATGTGATATTCATCGACCCCTCTTTCTCAGACCCTCTTT
ATAACAGCTAGTATGGAAAAATCTGTCTTCTCTATAAATATTTTCCCTGGGGAATGGNTT
CCCATTAATGTGTNGGATGCTTTGNTGTTTCTCTCTTGACAGCGTGTATGTTGTCATCT
GCACTTAAGAAGTGGAATGGAATTGGGAATCCTGGTTTCTTGCTCTGGCTGGAGGTCCCA
AGTCCGCATTGTGATTTTGGGAAGTCACCGTTGTTCTCTAGATCTAATTTAACTCATCT
GTAAANAANNNGGNTNGAATTCCGACAATTTTCATGGGTTTCATTAGATGCCAATATTTT
ATGACTCATGATCCAGCNAGACTACACCTATTTATAAGGCTGGTTTTGCTTGTTTTTAC
TAAGAGCAACAATNACTACATATTTTCAAGTTACTCAATCATCAAAAAAATTATAAAATC
CATAAACACTTTGGATTTGAAACATTGCAACTTTG

Sequence 201

CGTCCGAAAAGCAGTCTTTCTTGCTCAAAGTATTAANGGTGAACAATTGAATAGAGTACT
GTGGTCCGGAGACTGATTTGAGACTGCAGAGCTGATGCTGGGTAGAGGGTCTGGACTTGT
ATTCATGTTCTGTCTCAGGGCAGCCCTGGAGCAGGAGATGGCAGAGGCATTTACAGCTG
CAGAAAACAGGGAGGAATGGAATCTGAGGTAGCCCTGGCCTCAAAATTCAGGCCTGGCTG
TATCATTTACAGAGATTTTTCTGGAGGGAAAAAGTCTCATTTCTGAGGAAGGCAAGGNGG
GCTAATCATTATTAATTTTTTTTAACTTTTTG

Sequence 202

GCGTCCGGTTGAAGAGGGCAGGGAATAGGGGTGGGTGAGCGTGAACAGAGTCAGGCTGAT
TGCTGCAGGGTCCCTTGCAATAGTTCAGGTGAGAAGAGACCCGAGTAGGCCAGTGAGCCT
GGAGGAGAGGCTCTCTGTGTGTTAATTGGTTTCCAGCTTTTTTTCTCTATTTCATGTAGG
TTATACACGTTTCTTCTGTGAATTTTTATTTAAATGATTTTTTGTGTTACTGGATCTAC
AAACAGCCCAACTCCAAGGAATCTGGCATCTCTCAGTGGAGCATACAGGTGACTTCATAA
TCTAACCGCATTAGTAACTGCCAAAATCGGAAGTAATTTCTCTCTGTTTAAAAGGCAGTG
AAACAAATTTTACAGAGCAGGTTTCTCAACTGAACAAAATATTTTGGACCTTAAAGGTGG

TABLE 1
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TATGGCTCTCCTGATCAGGGAGGGACAGTGAAAGGTTTGAGCTCTGACACTGNCCAGCTC
TCTGGATACAACCAAGTGACTTTTTTTTG

Sequence 203

CGCGTCCGAGTATATAGAAAAACCATTAATTTAGACTCTGTGAGATTAGGTTGCATGAAG
AAGGTTTTCTGAATATTTGAAGAGTGGATAAATAAATGTCCCCAAAGCAATAAATCAT
AATCCTTTAAATATAGGAAAAATAACTAATGGGAACTAGGCTTAATACTCGGGATGAAA
TAATCTGTACAACAACTCCCATGACACATGTTTACCTATGTAGCAAACCTGCACATGTA
CCCCTGAACCTTAAATAAAATTTAAAGTAATAATAAAAAAAAAAAAAAAAAAAAAA

Sequence 204

CGCGTCCGCTGGGAGGCTGTGGGGTCTGCCACCCAGCAGATCTGTGTCACGGGAGTGGCG
CTGTCACTCGTTGAGGTGGTGGCCTGGTTCTTTGGCCTTAGGGAAGGACAACTTCAAC
TCTGAGCCTTGATTGAGTGACCTTGCCAAGTTACCTAGCTTTTCTGAGCCTCACTTTT
TGGCNATTAGATGAACCAGAGGTTTATTTCACTCAGAATCCTGTTACGATGCTGGTATT
TGGACCAGCCTGCGGGTTTATCCTGGGCTCTTCTG

Sequence 205

CGCGTCCGAAAAAGGATGAGAAGAGAGGTGCATTCCAGAAGACAAAAGGTGTGTAGTATC
AGGATAAGGGGCTTTAAATATCAGATCCAGAGAACACTGCACATGTAGAAATGGGCTTGG
CCTGGGTCAGGGCATTGAGATTGGTTACATAATCTTTCAAGGATTGGTGAATGAGTTGG
AGTATGTGTAGAAACCTACAAAGATGACAGTTTAACTCTCATGTCAATTTTTAGACAAA
TAATGTATTTTAAACTGGGTGCAGTTCCTAAAGCTGTTCTAAAAGTCAATGCAACTGAA
TTTGGAAATGTAAGCATAGGACAAACAGATGGGAAATAAGTCATGACCTCTGTGGGATAAA
GTGAGAGTTATCAAAGAATGTCAGTGTTTATAACAAGGAACAAGCTTGTTTTGGAGAATT
ACTAGATATTATGAAAAATTTTTCTTTCTACATTTGGGTAACTATAGCTGAACTATA
GCAGATCATATTGACTTGGCAAAAAA

Sequence 206

CCNCGCGTCCGTTATGTACTTTTGGAGACTTCCATTAGAAATATTGGCAAGTCCCTGCT
TCGTGGCCATAGATTTAAAGGCCTATCAATTTTAAATGTTTCGGTCATTGAGAGCTAAA
ACATGTAACATATCACAGTGTTATTCAACAGAAATAAAAAATCAAGAGTCTGCTCAGAGT
AGGTTAATATGAGTTCTTTCTTCAGTCCAGCTGATGGTTTTTAGTAAGATGAACTGCCA
AGGAGACAATGAGCACTGACTTCTCGATGCATGACTTCATCTTGTTAGAAGGTGGGTGCG
CGGGCCGCGGTGGCTCACGCCCGTAATCCCAGCACTTTGGGAGGCCGAGGCGGCCGGATC
ACCGAGGTNGGGGGGATCGAGACCATTCTGGCTACACGGTGACACCCCGTCTCTACTAAA
TATACAAAAAATTGCCCGGCCGTGGTGG

Sequence 207

CCNCGCGTCCGATGAATAGTTAGCCCATGATAAAGGAATAAAAGGATGAAGAATATTTGA
AGAGAAATAAATCTTCTCACTCCTCAGGTTCCCTTCCATGTGCAGGAGCCTCAACCTAC
AACTAGCAACCTTATCTCCTGACTCATTCTCTAGAGGAGGAGTAAATTAGTCAACTG
ATATGCTCTGGAAGAAAAACCCA

Sequence 208

CGTCCGGTCTTTCTCCCCCTAAATAATGCATTACAAAGTGGAATGCAAATTTCTGTG
CAAGCTCTAAGTAGCAGGTGGTATTTCTTAATATATTGTTTTGACCTTTGGGGAAATT
GGTATTACGAGCTGACTTTGGAAAAATTAATAAGCATCAAGGTCCTACATTTTAAATAAA
ACAATCGATATCTTAATTTTAAATCAGACTAGATTACGATACCAGGAAAAGACATACA
TATTTTGCTTTTATGTGTTAAAGTTTGTAAATTCAGGGAGGACAAGAAAAGGGATATGGT
GCAGCTGAACCTTCTAATTCATAAGACAGGAAAAAAAAAAAAAAAAAAN

Sequence 209

CGTCCGGGAAAAACAAGGGTTTCCGCCAACAGGCTGAGAGCAAAGGAGGACGCAGGAAAA
CTATTTTAAAAATTGACCCAAGAGTTCAAAGGCATATGGAAGCATTTAATGGGGGTGGG
AGGTATCCTTGTAATAAGAATACCATGCATGTATTCCCACTGCTCTTGGTGGTCTGCA
AAGTGATTTTCATATGTATTTTATGTCAACACCAGCACAAATGAGGTAAGTAGGACTGTATA

TABLE 1
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CCTCAGAGGCATTTGGTGATTGTCAGAGTGGAGTGTAGTGTGTTGGTGCCAGATTGGA
ATAGGATCATTTGAGTCTGATATCATCATGTTGCCACCGCCTACTCAGCCTCTACACCC
GATGAGGCCAATCTGCAGCTCACTACAGTCAATAGAGAACAGGCAATTAACCCCTTAAGTT
ATATTTTAGAAAGATTTCTGTCTAAAATAGATAAACTTGAAAGTATAGCTCTTCAAATA
ACGTATTCCTGTGTTGGCAAATATTTTCCAACTCACAATCAACACATAGGTGTATTTCT
TAGACTACTAGAAGTGGGGACTTACCCCAA

Sequence 210

CGCCNCGCGTCCGGGAAAAACAAGGGTTTCCGCCAACAGGCTGAGAGCAAAGGAGGACGC
AGGAAAACATTTTTAAAAATTGACCCAAGAGTTCAAAAGGCATATGGAAGCATTTAATGG
GGGTGGGAGGTATCCTTGAATAAGAATACCATGCATGTATTCCACACTGCTCTTGGTG
GTCTGCAAAGTGATTTTCATATGTATTTATGTCAACACCAGCACAATGAGGTAAGTAGGA
CTGTATACCTCAGAGGCATTTGGTGATTGTCAGAGTGGAGTGTAGTGTGTTGGTGCCCA
GATTTGAATAGGATCATTTGAGTCTGATATCATCATGTTGCCACCGCCTACTCAGCCTC
TACACCCGATGAGGCCAATCTGCAGCTCACTACAGTCAATAGAGAACAGGCAATTAACCC
TTAAGTTATATTTTAGAAAGATTTCTGTCTAAAATAGATAAACTTGAAAGTATAGCTCTT
CAAATAACGTATTCCTGTGTTGGCAAATATTTTCCAACTCACAATCAACACATANGTG
TATTTCTTAGACTACTAGAAGTGGGGAC

Sequence 211

NCGCGTCCGGTTTCNTTGGGATAGATTTTACCTATGAATTCCTCCTTAGAATTCTGAAAT
TGCTCAGATTTACCCAAATGACAGCCAGTTTCTCATTTTACATTTGGGGGCTGTAGAATC
TTCCAACATTGAGAACCTGTTTAAATCAAAGGATGCTTTGTGGAATCCTGAATGAGGAAC
AGCATGTTGCAGGAAGAAGAGAAGGATCCTGATGCCCTAATGGGACTGATTTCTTTTGG
GGGGCAGGAAGATATATATTCGTTGGGTGCTTATAAAAGGTTAATTCCAAAGATTGTGTA
TGGTTAAAGGACTGAAAGTCACACTTAGCCTCATACTTCACTTAGATGAAAAACAAAGC
CTTCCTCTCCATTACCTTGTAAAGATCTATTCCTTGTGTCTTGTGCTGAGTGGACCTGGAA
TAATGGATAGCCCTCACTGAGTACCTAGAAGGGGACTAGGGGTGGGTGATGAAAGGGGGT
TCACACCGAAGATCTAAGTGCTAGCTTGGGTA

Sequence 212

CACGCCCCGTGGCCTTGCTAGAGATCCATATAATGCAGTCATGCTGTTTCTTNCTCCATA
GTATGTGGGGCATGAGGAGGAGACAGGGAGAGGGTGGCTTCATTGNGCAAANGNGGAATG
GCTGTGCTTTGGGGCCAAGGAGATGCTGTCTGCTGTAGCTGCTCTGTGAAAGGTCAGGC
CTGCCCTNTGAGGCTCCCTTTATCCTCCTAAATTCTGGGGCATCTACATGACGCTTTCT
AGTCCACCTTTGCCNCGCAGATCATGCTACTAACCTGACCTTTGTCTGTACTTGAGCA
CCCTTCGCGATTTAACTTNCATGTANCGTCCGACTTCTAATATGGATTGAAATTTNTTGA
CTGTTACTGCTCANAAACATCACCCCTTTTTTGTAGCAGNGAGCTGGNAGGATAATTGCCGA
CAAATGACATTNGGANCCGTTTTNAACCACAGGGGGCATGGGG

Sequence 213

CGATCATTTTATTAGAGTNATGTATTTAAGAACTGATAAATCATGGGCTTACCTACACAA
TGTCTAGACACATGAGCAATGAACAAATAGCAAGGTCTGTGATATCTCATATGGCAATAC
TAGGACTGAGATTATTTTTGTTACAATTAATAATTGTCAGTAAAAATCCACAGAGATCA
TTTAGAATGGGAAAAAAGTCTGATATATTTTGTTCAGATTATAATCATTAAATAGGGTAC
CTGACAGTTTTCAAAGTTGTTTAAATGTTTTTGGGTCTTTAACCTTCCTAATCCTACAAG
GTGGTTACAATCCACATATTATCCTTGTGTGTCAGGGGTCTCCAGCACCTGCCTTAGGGTC
AGTGATTTGCTAGAAGTACTTACAGAACTCAG

Sequence 214

ATCTGACAGCCTGGAACNGCACCCACACCCCCAGGTGAGAATCTGATGTTCTGGAGCATC
ACACACAACCACAGGTGAGCATCGGAGAGTCTGGAGCAGCACCCACAACCCAAGGTGAGC
ATCTGACAACCTGGAGCAGCACCCACACCCCCGAGGTGAGCATCTGACCTCCCGGAGCAGG
ACCCATACCTCCAGGCGAGCATCTGAACCCATGGAGCAGCACCCACGCCCCCAGGCGAGC
ATNTGACCGAACAGAGCAGCACCCCCTCTA

Sequence 215

TABLE 1
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TCCGGGAAAGACTCTGAGAAAGGACTCCTGACCTGGCTCTTCCAGAATGAGGATGGATTT
TCCATATGAAGGAGCCGGGGGAGGACCTTCTGGGTAGAGCGTGAAAAGAACACAGTATG
TGTGGAGAGCGGGAAATTGTGTTGAACTGTCTAGAAAAACAGAGCCACAGGAATGCGTGTT
GAGGGCTTGGGCTGTACAGTGGAGAGTGCCCTCCCTGGCCAGGGAGTTGGACATTCATCC
CACCACAAGACCCCATGAAGAGTTCCTCAACAGCTCTGTGTCCTCATCAAACCTGTGTTT
GCAGAACAGTGGAGGAAGAGAGCTGAAGGAGGGGAGAGGCCCTGCACCTGCCAGGCCCTG
GCCTAGACTACAAGGGTGAGCACTGAGCCATGCTCTCGGGGAACCTTCACTGGAGTTGAG
GGCAGTGAGAATGTTTAAAAAAAAAAAAAAAAA

Sequence 216

ACGCGTCCGATGCACACTTGTCTTTTACCACANGGGTGGGGCGTGGGANGGAGGTTTGT
TTGGATAGCCACGTAAACGCCTTTCCCTGTGGCCTGCGATGTTCCACACCGTTTATGTGT
GAACTGGCTGCACCCGCGCCTCCCGGACGGGGCTGCCAGGGAGGAGGGCCCGGGAGACCC
CATCCAGACCCCGGCCCGCACGCTGCAGAGGTCTGCTCTCAGACATGTGGTGGGCTCCGT
GTCACGGGTAAAGGGTCTAGACGGCAACAGAGTGTCTCTCTTCCCGCTCCCT
GGTGTGCCACCTCCCTGTACAGTGTCTGTTCAAGCTGCTGCAGGGGACGGGGCATT
TTCCTCCAGACTCTATTTTCTGCAAGGAAGAGCTGCTGTCCTTTTCTTACTGAAGCCC
CTGATTCTGTGTCTGATGTTGCTGACCGCCGTGCTTGTCTTCTGCCCCTGTGCAACTC
CAATCCCAAGCACACGTGCTCACTTCCAAG

Sequence 217

GCGTCCGGGGAATGGCTGTNAGTNAAGTTAGAGGTAAAAAATTCATGTTAAGATTTTG
GAACTGGATTTTATTTAAATAATGATGCGAAGCCATTGAAAGGTTTTTGGTGTGACAGG
ATAAATTTAAATATGAACACACCAACGCATACTTCTTTTAAAGAAAGAACCTGATTAAAT
TTGGGAATTTTAAATAAAAAACAGGAAGCATATCGTACTCTAATAATAATTCAAGGGT
TTTTATTTTCTAGAAGATCAAGGTCATGTTAATAAAGGGAATATAGTTTTCTTATCTGT
GTTAAGACACTGATGACTTGCAAAGAAAAGTAACACTTTTGTGATATCCTTAGGTAATTC
AAGAGGAAACGCTTGAGCAATTACTGATGTTGTAACTGGGATCAGAAGACATA

Sequence 218

NCCCGCGTCCGCCCAGTTGCAAAGGAGATGTTGTAGGATGTTAGGTCTCAGCACAAGGA
ACCCAAACCTTCAGGGGCTCTCCTCTACATTATGCTCCATTTTTCTCCCAAATATCGA
TCTCCACCCACCCTAGACATAGAAGTGGAAATAAGTTCCAGTTTCATCCCTTTCAGAT
CTTAGGGGGACCCATCAAATTCAGCCACTGGGTGAAAAATCAGCAGCTTCTTTATAGGA
CCTGAGTTGCCTTCTAGAGGATCCTAGAGGAAAAAATAATCTTATCCTTCAAATACT
GCTGTCTTCCAAATACGTAAGGACGCCACGGTGAATCATAGTGGACACCCTGCATTGGT
TGGGTTATTATTTATCCTAGAAGCTTGGGTTCTTGGAGCCCTAGCTTATTTAAGCAACAA
AGTCCCTCACAGCCCACAGGTGAGGAAGTGAGTGTAAACAAAGAGATCATTGGACCTAAAA
TCAAACACCTG

Sequence 219

CCCGAAAGGAGGTTTGTGGAACCTTGGAGAGATCCAGGAGGTAACACCAAAAAGCTGCATT
TAGCAATGCCTGCCTAGCCCTCCTGTACAGCTCATGTTATTTTGTGCTTAGGCCATCT
TACACCAAACCATTCCTATCTCCATGCTTTTGTATGCTGTTGCCTCCTTTTAGAAGGG
CCACGCTCCACCGCTCTGCTGTGTTGATACTACCGACCCTTCTTTAGTTCCTGTTCAAT
TCCCAAGCCTTCTGCCAAGCCTTCTTGGACATTCCCATCCCATGCTGACTATTCCTAAG
CTAAAAACCTTAGAGTTAATATGATACTTGGCTACCTCATTGTTTCATATCAGTCAT
TCCTGTCTCTAGCTATAATCGGCTCAGCCAAGGAAGATATATTTATATGGACAATGTCTT
TGTGCCTTGGCTGTAAACAGTGTTGAATAATTAATCTCACTTGATGAGGTCTTACTTAAT
GATAGCCTCC

Sequence 220

CTCGTCCGGGCTGGATCCGTCTGCNCCACTGCAAGGGCAAGATGCAGCTGGTGGCTGACC
TGCTGCTGCTGTCGAGCGAGGCGCGGCCCGTGCTCTTCGAGGGCCCCGCTCCTCTGGTG
CCGGCGCCGAGTCTTCGAGCAGTGCCGGGACACCATCATCGCGCGCACCAAGGGGGTTT
TCATCCTTACCCACGACGTGCAGAGCCAGCTCAACATGGGCCGCTTCGGGGAGGCGGGG

TABLE 1
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ACAGCCTGGTGGAGCTGGGCGACCTGGTGGTGTGCTGACCGAGTGCTCGGCCCCACGCGG
CCTATCTGGCCGCTGTGGCCACGCCGGGCGCCAGCCCGCGCAAGN

Sequence 221

GATTTTGGCTNCTGCAACCTCCGCCCTTAGGGGTTCAATGCAATTCTCCTGCCTCAGCCTC
CAGATTGGGATTACAGGCATGTGCCACCGTGTCTGGCTAATTTTCTTGTAATTTTAGTAC
AAAAGGGGTTTCACCCACATGGGCCAGACTGGTCTCAAACTCCTGGCCTAAAGCGGATCCA
CCTGCCTCGACCTCACAAGGTGCTGCGATTACAGGGATTACAGGCTGGGATTACAGGCAT
AAGTCAACCACACCCAGCCTAAAAATTAAGTTTATACTGTATTGTTACATTGTGATGC
AACTTTCCATATGTATTTCCAGAATCAACTATGTATCAAGGAATATTGAAAGCATAAAT
GAGATCATGGTGAATTCTCTCCATTGTCTTCTGNGGTAAGGGAATGAATGGTGG

Sequence 222

CNCGCGTCCGAGTTATTNATATAAAGAACATTTTCTGTTTTAGAGAGAACCCATTTATT
TGTGAAAGAAACAGAGTTTTGTTCTTATCCCTATAAACAAGTGCATTTGCTGTTTCTTCTC
TAGCTGATGTGACATATTAGGGAAGCAGCACCCGACTGGGACTCAAAGACCTGGGTTTG
GAAACTTTTTGATTACTAGCTTAGCTGTGTGAAATCAGGCAGATGGTATAACTTCTCTCA
TTGATGATGTCAATCTTTTTAAAAATTTCTAGCAGTGAAATTTAAAAAATGAAATGTT
AGGTGAAACCTCAAACCTACAACAGTGGTAAATTTGGAAGGGTCTGGATGGAGTGAGGG
CAGGGAGGGGGTAAGTGGGCTGAGGGGGCCCTCTTCAGCCTCTTCTCCCTTCAACCGA
AGTCTGAAAATCTCTGGCTAATATGGGTGGATCCCTAAGATTTCTTTGTACTTTTAAAC
TACCGAAAAGNTATTCTAAAGAATTTTGGTATGGTTTT

Sequence 223

CGCNTCCGCCGAGCGCAGCAGTCTCCCCCTAACCTCAAAGCCTCCTCAGAAGTAACCTG
GTATCAGTGGGCTGTGCAGATTCTTATAGTCTTCTTTGCCTTTATATATGAAAATAACTT
TGTTTTATGTTTGTTCACATAGGTGGAATTATACTGACTCTTACTCTGTGACTTGCTT
TCTTCACATGACAGTAACTCCTGGACTGTTTCTGTAGCAGCCACACAAGTCTCCTTTATA
TTGCCAATATCTATCTTTATCCCAAAGACAAGATGAATGTTCAAAAACGGTAATCCAAAC
TCACTTCTAAAAATGGGTGTGTGTTTAAAGAAGAGCTGCTCAGCTGAGGCAGTTTGTCTG
CCGAGGGGATTTGAGCAATGTCTGGGGACGTGTGGTTGTCACAACTTGTGAGGGGGGCTC

Sequence 224

GCNTCCGTC AATTGTCATCAGTTGCCTTAAAGAATGGGGTAGTTATAGGAAGCTCACAGA
GAGGAAAAAACTCTTCATGTCTACATTGCTTCTTGAAGTATTTTATTTATAAAAGAAG
AATTGTTGAGCTAGTGATAGAAGTTTCATGAATCCCTGGTACTAATTATCAGTTAAATG
ACCTCTCTGAAGTCTCTGGAGAGCGTTCTGTGCTACTAATATTGGTGAAAATTTGAAACA
AAAATGCTCTCCATTGTCCACATATTGCTTCTTTGAATTTGGTTTTTCGAGCCAAGAAC
TTAGGGTGTGAGAATATGTTTGTGGGGAAACCCACACAAATTTTATGTTAGTCTCTGTAC
ATTTAAATTTTACCTTCCTGATTACTTACGTAAGACTAAACAATTTAAGTTTCTAAAAT
GCCATCACTTTTGCAAATAAAGGACTTTATTAAGNTGATAAATAACAATNATGGGCCAT
CAGCTCCACCTATAATTAATATCCTTGCCTGGCACCCCTGGAAGGGACTTAGCTTNTT

Sequence 225

CNTCCGCAATTACTGCCTTAGGCTAGATTCCCATGAATANGAATTGCTGAGTCAAAGGT
TGACACATTNTTTAAAGGTTAGATACATATTAGTCAAAGTTTTTAAGCAANATGCTTTCT
AAGCCTNTTTGATCTTTATAANNCATTGNTCCTTTCTAAAAATATATACTGTCTTCTGC
GTNCCAAGGATAATTNTTTTATTAATATGGGGCTTCTTGTGTCTACTTCTCCCTTTCT
GTTATTTCTTCAAATGTTTAAACAACTAATACATTTCAGAACACATTATGCTTNCATCT
TGTCATATTTGCAGTACCTTGTATCTCCTGGACTTTATGCAATGCGTGTGTGTGCACAG
ATGGAATATGTTNCACCATTTGGCT

Sequence 226

GCAGTGCCGGCGGCGCAGTTGGGAATGGGAGTGCGCTTGACACAAGCGCCGACGAGCGATA
GCGACGCTATGCCCTCTCTTGCCAGGCGCCGGGTGGCGCGGATCAACCTGCTCTCGCAG
CAGCCCCTGTGGTGGCCCGCGGTGATGATGCAGGAATCGATTTTCGACGGTGGNCAGCTT
CGCTTCGATCAACATCTTCGNCGAAGTTCGCGGTGAACCGTNCGGNATCGACATCGTGG

TABLE 1
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CGCTGGCATCTGCCGCTATACCAATCATCGAAACCGCGCTGGAAGGTCGGGTCCAGCGCC
CTGCAGAAGAGACGCCTCCAGCAGGACAAGGTGGCCTGCTCGACGAGCAGGCTACCCGAG
TGTCGTTGAACAAGTATCGCCTTGGGTCT

Sequence 227

CTGACACCCAGTATTGCCAACCTAAGGACTAGGAAGAAAGGGCTTACATGTTTCTTGCTT
TAATAATATGTGAATTAGAAAAGGTATTCAAGAAGATACAGGGTTAGAATGTGCATCTTT
CTTTTATGTACTGAAATGTTTCAACTCATATGCAGCAATGTGGTNACCTTGAAAGATGAT
TCCAGAGATTTTCATGCTTCTGGCAGTTTCAGGTCACATTGGGGTGAAATTTGACATACTG
TAGTCATCCCCAAGGTAATAATGTTGATGAAATGGTATAAACCCCTGATACATTCTTAAGC
AAAATGAATCTAAAAGTTTGTTCAAAATTTTTAACGTTTTATGTTGCTCTGACTTTCCA
TATACTGATTTTTACATTACTTAGTGAAAAAAAAAATTACCTTTTAGCTTNTGGCAACA
AAAACATTTTTGGCTATT

Sequence 228

CCNCGCGTCCGCAAGACAGGAGATTTCTTAAGGTCATATATGCACGATTTGCTTAAACGT
CATATAGCATAACTGGAAGAATATAGAATCTACCCAAAGCCTATGCTCTTTCTACTGNAT
TATTTGCTTATAATAGAGAATGCTAATCAGAATCACCTGAATAGTCTTGTAGAGGGTCAG
TACACAAGCCTAGGTCCTATCCTTCAGAGAGGTGAAATGGAGGCAAATATATTCTGAAAG
AGTTTCCCAGTTGATTCTGATGAGCACTCACAATTAAGAAGTGCTGCATTAAGAGCTGTA
CATGGTGGCTTATGCCTGTAATCCCAGCTATTCTTGAGGCTGAGGCTGGAAGATCACTTG
AGCCTGGAAGATCACTTGAGCCTGGGAGTTGGAGACCAGCCTCGGCAACGTAGTGAGACC
ATGCTTTTTTTT

Sequence 229

TTGGGAGATATGGCANGGTGAGAATGTTTGGGAAAGGAAGTAGAGACAGACATTGGATTT
TTGTCAGTCAANTTTCTTTTGATTTTAAATTATTTATTCATTACATTGTCTACATGGCAG
TTAATATTCTAAAACATAAAACAAAATTTAATATAGAAAAAATATTATGCTTTTCTTTT
TGCCTTTGCATGCTCTTATTTCAAATAGATTTAAATTCATGGCATATTATACTAGAAA
ACAAGTCTGTCAATGATCTAAGCTTCTATCTTTAGATACTAGGAAAAAAGAGAAAAACCC
AAAGCAAGCAGAAGCAAGGAAATAAGAACAGAAATAAATGGAATTGANAAGAACTTCA
GAAATCAGTCAAACCTGAAGCTGATTTTTATAAAGATTA

Sequence 230

CCACGCNTCCGAGGAAACTGGCAGGGAAACAAAGTATCCCTGGAAGGAATTTCTTAAAGA
GGAAGAGGCAGATCCCTACAAGTTTAAATCAAAGAATTTGAAGATGTTGATCCCAAAGT
GAAATTGAAAGATGGACTTGTGAGGAAGGAGAAAGAGAAGCATAAAGATAAGAAGAAAGA
TAGAGAGAAAGGCAAGAAAGATAAAGATAAGAGAGAGAAAGAAAAAGTGANAGATAAAGG
CAGAGAAGATAAGATGAAAGCCCCAGCACCCCCACTGGTGTGCCCCCAAAGAGTTGGC
CCTGCCCTTGTTGAGCCCTGCCACAGCCTCCAGGGTCCCAGCCATGCTGCCATCTTTGTT
GCCAGTGCTTCCGGAAAACTGTTTGAGGAGAAAGAGAAGCCGAAGGAGAAAG

Sequence 231

NCTAGACTCCCCTCTCGTATCATGGATCCCAACATCNAGGNATATGGNCATTTACGTGTT
GGGATCTGCTCTGCCATTGNACACAGCTATATTCNATTGCCCGGGNGTTGTGTATNTTT
CCAAAAACGTTGAAAGGGAGGTTCAGAAGTATNCAGTTATTNGTATTATTAGTCGTTTTG
AAACTGAGTNGAAAGACTCATTNANGAAAGNTCCATATGCCTTCTTGTCTGTCTATGGCT
GGNNTGCTCNNGAGAAAAGTCCNCANTTATACAATTGTA

Sequence 232

TTTCCTTTTTTTGGGGGCGGGGTGCGGCTCTGTGCGCCAGGCTGGGGTGCAAGGTGGCGCG
ATCATGGCTCATTGCATCCTCAAATGCCTGGGCTCAAGCAAACATCAGTTTTCTTATCTG
TGAAATGAGGATAAAAAATGTCTCCACTTAAGGGTGTGCAAGGAAGGTGTTGCCTTAGT
CATAAAAGCTAGGGAAGGTGTTCTTAACGAAAAACAATTCGTCAGAGACATGAAGGTAGA
GGAAGAATTCACACATGAAGGGGGCTGGGGAAAAATGATTTAAGAAAAAGAAACAGGCCTGG
CGCAGTTGCTCAGGCTTGTGATCCCAGCACTTTGGGAGGCTGAGGAGGGTGGGATCACCT
GAGGTGCGGGAGTTCTAGACCAGCCTGGCCAACCGTGGTGAAACCTTGTCTTCTACTAAA

TABLE 1
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AATACAAAAANATTGGCGGGGTGTGGTGGCAGGTGCCTGTATTCCCAGCTACTTTGGAGG
CTGGGACGGGATAATTNCTTGAGCCCCGGAGGCGGGGGTTTCCGGTGAGCCCCGGGATTGC
GCCCTTGCCTACAAGCCTGGGGCACANAAGCGAGGACTNTGTCAAAAAAAAA

Sequence 233

CCACGCNTCCGGTCTCAAATCNCCTCAAGTATATTCAAATTTGACCACTTCTCACCAGC
ACCACTGTCATTATCCTGATTCAAGCCTCCATCATCTCTCATCGTTACTGTGACCTCCTG
ATCATTCTCCTTGCTTCAGCCCTGGCCCTGCAGGCAGCATTAGTATTAAGCAGTAGAG
TTGTTTCTATAAAAATGTAGTCAGCTGGGTGTGGTGTCTCACGCTGTAATCCCAGCACTT
TGGGAGGCCAAGGTGGGAGGATCACTTGAGCTCAGTTTGAAGACCAGCCTGGTCAACATG
GTGAAACCCTGTCTCTACTAAAAATACAAAATTAAGTGGGCATGGTGGCGGGCACCTGT
AATCCCAGTTACTGGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAGGCAAAGGCT
TGCAGTGAACCCAGATCACACTACTGNTTTTNCACCTGGGCACAGAGTGAGACTGCCTC
AAAAAAAAAAAAAAAAAAAA

Sequence 234

TCGAGGTCAAGGACGGTTATGGCCCGTAACCTGCTGCCGCAGAATTACGCCATCAAG
TGGACGCGCGGTGCTGAGGCCAGATCAAGGACATCACTCGCGCCCGTAAGGCTAAGGAG
ATCAAGTCCAAGGAGGAGGCTGAGCAGATCCGCTCGCAGCTGGAGCACCTGGTGGTCCAG
GTGACTGTCCAGGTGGCGGAGAACGGTCGTCTGTTCCGGGGCCGTGACTCCTGGCGATATT
GCGCTGGCAGTCAGGAAGGCCGGTGGCCCCGCCCTCGAGAAGCGGTCCATCGAGATCACC
AAGCCGATCAAGACCATCGGCAAGCACACTGTCCGGCGTCAAGCTGCATGACGCTATTAA
GGGTCACGTCACGGTCGAGACTGTTCCCGCCGCGTTGATTTGACGTACACGCAGANTAGG
GGGAGGGGCATCCAACCTGGGTGCCCTTCCTTTGCTTNCGTACACCCGGCGAAAGGTAA
ATGACCGAAAGTAATTCTTATTACNGTGCTTAGGGGGGTTTCGCCGCGCCGGGCCGTTAG
ACTTAGTCTAGAAGAAAAAACCTTCCACACCTTCCCCTTGAACCTGGAAACATTAAATG
AATGCNATTGGTGGGGTGGTAAACTTGG

Sequence 235

GNGGTAGCTTTGTGTATGTCTGGGCACTTCNAGGAATAGGGTGCAGGAGAAACGTCTCAGT
GTCTCCCTTCCGAATCTTGGCTTCTGGAGGGAGAGATGCTGGGGTGGGAGTGCTCCTTG
GTGGAGTACTCAGGAGCTTAGTAAAAGCAGAGGGGGCTGGAGAGGCAGGCTGGCCTGCA
GAGCCAGCATGGAGAAGCCTGGTGTAGGGCTCTCCAGCCTGCCAATTTACAGTTAAGAAG
AAAGGAGATATGTATATATATATACACACACATACATACATACACACACACATA
TATACACACATATATATACACACATGTATACATATATATACACACACATACATATACA
CACACATGTACACATATACACACATATACGTGGGGTGTGTATATGTATATATGTGTAT
ACGTATATA

Sequence 236

AACTGTCTAATCTCTTGACCTCGTGATCCCCTGCCTCGGCCTCCCAAAGTGCTGGGATTG
CAGGCATGAGCCACTGTGCCAGCCATACTTTTTTTTTTTTCTGGNGCATTCTGAAG
TTAAATATGTTGAGTTCTCTGCCATTTGTTCAAATCTATTGNATTATTTCTGNNGGAT
TGACAAATGTTATGAACAATTTGGTTCAAATAGATTTTTCTATTTAGCACTTTCTAT
TCCTCTAGGACCTAGTATTAAGGTCATTAAGATGGCTTAATGAGTCATTAAGCCATTAAT
GAGTCATTAAGATGGCTGACCAATCTGTGCCATCTTTTTAGTGACATTTTGTATCAG
TGTCTCTTTTGTGTATTTCTTTGATTTATATCTTGACAGTATTACATAAGCAGGAATAAA
AGAGACTTTGAGTGGGAATGTCTCGCTCAAATATAAATAACCTTATAAATAAATCTTTA
CTTCTCAGAGTCCTAAATCTTCTTGGTTAGTCTGGTCTTCTGGGTTGATTCAAGGTTT
TCGGNGACTAAATGGCAT

Sequence 237

TGTTNACCTTTGGGATTACACAATACTTGCAATCCAGCTCTGCCATGGGGGACATCATTA
CACAAAGCACTCCTCACCAGTAGTCAGATGGCACTTGATAGCTACAGGCATGTGAATATT
CTTTTACTGTCACTTTTGTGTGATTTACCTAAAATATGATAAGCTCCTTGAGGATAA
AGGCTAAGTCTTACTTCTTCTGATTTCTGGTAACCGCTTGTACCAAACACCTGCCAAGCA
TTGTTGATTGCACCTATGAGGAGGTGAGAAAGTGCCAGGCCGTCATGCCCTCTATACAA

TABLE 1
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ACATGTAACAGTAGACTCTGGTTCATCAAGGAGTAAATGACATGATATGTGATAGACCAC
ATACATTCGTGGCTATAGATAGGGTGAGTAACTGTAACCATATCCAATTGTGAGCAAAAA
GTGTTTAATTGGGGNGGTTTTAACTAATATAAAATTGGCTAAATCATCATTTTTCAAGC
TCTCGAATCATCTGAAGACCTTTTTTTATTTTTTAANANTTAGGCC

Sequence 238

CGCTCCGTTGCAGTGAGCTGAGATCACGCCACTGCACTCCATCCTTGGTGACAGAGCANG
ACTCCATCTCAAAAAAAAAAAGAAATTGGGTTGTCTAGGCACAGTGGCTCGTGCCTGTAA
TCCCAGCATTTTGGGAGGCTNCNTAGAANAATCACTTGAGCCCAGGAGTTTGAGACCAGC
CTGNACAACATAGTGAGACCCCATCTGTACCAAAAAAAAAAACACCAGACCTGGTGGCAC
ATGTTTGTAGTCCCAGCTACTCAAGGGCTGAGGTGGGAGGGATCACTTGNNCCCAAGAAG
TCAAGGCTTCAGTGAGCCATGATTGGTGCCACTTGACTACAAGCTGGCAACAGANCCAAG
ACCCTNTTTAAAAAAAAAAAAAAAAAATNGGNTTGGGTTATAGGNGAAGTTNCCTGG
AAAACCTTACAAAACAAGAACCATGTTTGGGGGAANCAANTGGANGGGGTNAAANTGNCC
NCTTGANGCTTNTCCTTTNGNGGNCCNTAATTA AAAANGTTTCCCNGGTNTTGGCCNNGG
GNCCGGAAAATNCCTTNGAATTTCTTTAGCCCTTTTGGGNGGGGCAAAAGCCAGGGNNG
AATCCCNCCNNGGNTCAGNGATTTTNGNAACCNACCTTGGCCAAAAATNGGGGAAAAACC
CCNGTTTTTTTTNTAAAAATAACNAAAAANTTNCCCCCTTTNCTTTNGGGGGGGCCCA
CANNNNCCCCCTTTTTNATANANAANAANAANCCCCCCCCCCCCCCCCC

Sequence 239

CATCTCAAAAAAAAAACTCACACATATTTTATGTACACCTAGTATCAGTGAGATTTTTTA
ATAATTAGATTTATTATCTTCCATATTGNNTACAAACTTTCTTCAACTTCATAAAAAGT
CAAGTAACATACTGTACTTACTTCTCTCACCTCATTTTAAATAGTGGATAAATTGTCAG
ACACAGTGACTCTGCACCTGTAATCCTAGCTACTTGGGAGGCTAAGGTGGGAGGATTGCA
TGAGGCCAAGAGTTCAAGACCAGCCTGAGCAACACATAGAGACCCTATCTCTTTAAAAAA
AAAAAAAAAAAAAAAAA

Sequence 240

TGTCGACCCACGCGTCCGCGCTCCTGTCATCTCCCTGGGTCTTCATTTAAATGCCACAC
CAGAGAGGCCCTCCCTGGCCACCCTAATGAAAACCTTCAACATCCTCAACCCTAACATTTT
CTGTCCCCTGGGTATTCTCCTCCCTTGGTATTTATCACCATTTAATGTACTATCTGGCCG
GGCATGGTGGCTCGTGCCTGTAATCCCAGCACTTTGGGAGGCCAGGCGGGCGGATCACC
TGAGGTTAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAA
TACAAAAATTAGCCAGGCATAGAGGCATGCCGCCTGTAATCCCAGCTACTTGGGAGGCTG
AGGCAGGAGAATCTCTTGAAACCGGGAGGCAGAGGTTGCAGTGAGCCAAGATCAAGCCAC
TGCACTCCAGCCTGGGTGACAGAGCAAGACTCTGTCTCAAAAAACAAAAACAAACAAACA
AACAAACAAACAAACAAAAAACCCAAACAAACCCACCAACATACCATATTTGGTTTCTG
TAAAAAATAAAAAAGAGAGAGAGAATTTTAAAAAACAAAAACCATACTATCTAATTTA
CATTTTAAATCT

Sequence 241

CCCCGCGTCCGCTAAGGCATGTGAGCGCCTTGTAGGGCACGTTCTGTCTTCTGACTACAT
AAGCAACACTTTTGGGACCCTAAGTCACAGCACCCACAGCTTTTGGCAGGATACTTTAAA
ACAGAAAAACACATCATTGATCCTGGCAGGATTTTTTAAGGGATTGTGCTTAAGAATGT
TTAACTTTGGTAATCAGAGACCACCACTGGTGTTTTCTCCAAAATCACATCTTTAAGTT
AATTAATACTTGAAGTTAATAAATAACTGCTCAAGTGTATTAGTAATGATGCCATAAT
ACCATGTGAATTTATGCTGATTCAAATGTTGTTTTTTCGTTTGATACTCATATGGCCTT
CTGTTTTGAGGACTTCAGATTATTTAGCAACTGATTTAATCTGGTCAAGAAATAAATTT
GCTTCAGCTGGAAAGCGTGAGGCTTGAGAAAAGCAAGGTTTTGGACAGGGGACCTATGAA
GCTCATGTTGAACTTAAGTGTTTTAAGGCTGTATGGGAACCTTGAATGGGAGTGAAAAG
AACCAAGCCGTCTACTGNCAAGGTTTTCCCTCCTCCTCTAAATTTATAAACCTCATT
CTTAGAAGTGGCAAAAAGTTGGGAACCTTTTCCACTGNTTCACTTCTNTTANTNAGGGGA
TTAAAGGNGGATNGGNAAANGGAAGTTTTCNTGGTTTTTAAAAAANNGNANAANGGG
GGGG

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Sequence 242

GNCACGGCGGGGCAACCTGGTCCCTGGGCGGTAGTCCCGGCAGCTGTGCTTCCCCCTT
CACTGCAGTGCGTGTTGAGTTGGAAACACGGAGATTTACCTTTACTCCCTGGCTATAGG
GGGATGGTGAGAANGGGGCTGCGTGTNAGNGANATTCAAGGCATAAATCTTAGNTTGTG
TTTTAAAGAATTGNGTGCCGGGACGTGNTTGGAGGNTGGGTGCANANAGGAAGAGGCGAN
CTNCTGGAGGANGCAAAGGACAGGTCAANTNTGCGNANTTCNGNNNGATGCTGCTGANTGA
ACCCCNNGTGTGTNGCCCCAACAAAGAAAGGCTNNGCTNNGATCAAACATTTACTGNACC
TANAAGGCCACATTCTNGCTTAANNANNCCAGGAANGCNCNTTCTTGTTNCCCATTACCA
AAATCATTNACACTTGGTTTTTGGCCCNACATACCTTTCTTTTNGACCANNGTTCTGGN
NNAANGGCANTANACCNNGNATNTNNTCATNACANGAATAAAAAGCCCNCAGAACN
CNACANANGNGCCCATCACTANNNTANAGATNTCAAAGGGGGCCCGGATCCTTNACC
ANAGAANACTCTGGTCCNAGNGNAAGAAAGNAAAACCCCNANANGCACTGGGACNNT
NTNATANTTCTNNTTNAACAAAANCTTATAANNNAAAAAAAAAAATTTT

Sequence 243

AATTAATAAGCCTCCTGGGTGATTTGGCTGCAGGTGGTCTGAGACCACACTTTAAGAAA
CACTAATCAAGAATCAAGGCCTTATGACTCTTAGTCCTGTTTCTTCCCAAAGGACTATGT
TGCCCTCCCTACATTCGAAAACATTCCAAACAATACATAAGAGTCTTTGTAATTCACATTA
GTGCTCGTATTTACTGACTCAACAATTAATTCCTGATTGAGTCATTCATTGAGTAATTTT
CTTTTACTCACTCAGCCTCTGTGGTTTGCCAGGAGCTACAAATAAAAGATTAACACACAG
TCACACCTCCAAGGAACATATAATAGTAACAGAAGTAAGTACCATTTCTTGAGCACTT
TATTTATACATACCGTCATACAGTTTATCTCATTACCTATCTCATTCCCTGCCTTTTCA
TAAGCCTGTATACTATTATAACCGCATAGTTTGGGAATATTTTATATATATATATATA
TATATATATATATATATATATATATATGTATAATCACATATATTCTCTCAACTTGTNCT
TTACATTTAATATGTCTTAAAGTATTTCTTTGTGAGTCTTGCTTTATATATGTCTAGT
ATTTCTTTATAAGGGCTACAAGAAGTATCCCTCAAGCATTGGATATTTCAATCAAATTAC
CCTTGGGGGGGTNGGGGGGAAAAAATNNGGGGGGGGNTT

Sequence 244

TCGCCCCGCGTCCGGGGAAGGCTAAGGCGCGAGGATCCCTTGAGCCCAGGAGTTCTAGGC
TGCAGTGAGCTATGATCACGCCACTGCACACCAGTATGGGCAACAGAGCGAGATCCCATC
CTFAACAAATTTAAAAACAAACGAACAAATGAAAAATATTGCTGTCTTAAGGTTGGGAAG
GGGCAGAGACCCCTTTGCTTGCTCATCACCAAGACACTTCTGTGAGGCCCCAGGGCTCTT
TGGAGAACGTTTTGAAATCACGGTTCTAAGTAATTATAGTTACTGTGACTGAACTAATT
TAGCCCTAAGCTTCTACAATCAAGATAGAGATACACTATGGACTGCATTTCTCCGCTTC
AGATTAACAAAAAAGTTAAGTCAGAATGTAGTTATATTTTCAAGGTAATGCTCAAT
ACATTTTCAAGATGAAGCTGCTCAAAATTAAGCAGTGAGTCCAAGGGTTAATCTGNAAA
AAAAAGTACAATTTACTATCTCCTGGTTNCACTTATAGACCCTCATAGGTGCATTGGC
TAATACAAGGGGCCACTAAACACATTGTGGCATTACNGGATTTATTGGTGAAGNGCTC
TATAAGTTTTATTGGTGCCAGGTAAAAGAAANGCCTCNTATAAAAAAATGGTGGNGGGGG
GTTTTTTTTTNNCCCCCTTTT

Sequence 245

TTCCGTACCTAAGAATTGTACCCTTTTATAACAGCACCACTTGGATATGTAGAAAGAGTT
TGTTGTGAGATCAGATGTAAACAAATAAAAGTTATTCGTGAAATGATATGGAAGACTGG
GATTAGAACTGTGGCATTCAAGAAGCCAGTTAAGCTGTTCTCAGAATTGACAGAGATTC
TAGAGATGGTGTAGTGCAGATGGTGTAGTGCAGGGATTCTCAGCCTCACTGCACATGGTA
ATCTCATAGGAAAATTTTAAACAGGACAGATGCAGAAATCTTATTAACCTGTCAGGACT
GAAGTCCAGAGGTCACTATATTTTAAAAAGGTCTGCAAGTGATTGTAAACATGCATCTATG
GAGGAAAACATCANCGTAGGAGAAAAAGGGAAAGAAACCAACTGGAGTAAAGGCTCTGTC
TTGAGCACTGTGCTGGCTCCTGTCATTCTCCATCTCTTTTATCTTCATAGTAAGTGAGA
TGGGTTTGACAAATAGGGA

Sequence 246

CGTCCGGNGTAACTTGAACNAAAGTATTCTCCTTCTTCTGTATATTTGTTCTCAACCCC

TABLE 1
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6

CAATTCCTCATAACTTTCTAAGTAAGTAGGGTGAAAAGAAAAGTCAGGGGCTGCCTAGGGGAA
GCTACATTTGCTTCTCAAGGCTTGACCTGCATATTTTCATGCCCGACATGTTGCTGAACA
CAGCCGAGTAAAGTGCCAGAATAAAATCAGCTCTGTCCACGTGGTACCAGGAATGCTGCT
GAAATGAAGGTAAGTATAGGATTCCACAGGATCTAAGACAGTCCAGGGAAGTGGGACCAA
TTGTGGGAAACCTCAAAGCTGAGCATATTTGAAGAAAATGCAGAGTAAAATGGCTATGGG
CTGCCGGGAGGCCTGGATTTGAGATACCAAGCACCACCTGATATAAACACTGATGCTCAGA
AAAAGAAATGATGAGTGTGTATTTGTGTCCCTTGAGACCTAATTTAATTTATAATTATTC
ACCAGAGATAAGAGGCAAGGGATGTCTACTTGCTGGATATCTGAATTTACACAGTTCTCT
AGTCATTAGTATTTTTTACAAATATACCACTCAGACTAGGGGGGCAGAGGATCTGGGGTT
TNAATTTCAAGACCTGTCACCTATCTGCATGAATTTTGNAGCTTATAAGAACTTACAGGT
TAACCTTTTTT

Sequence 247

TGTCGACCCCGCGTCCNTNGTATTTATAAANATAATNCTGNTAGATAAATAAGTGATTCA
TATTTTGTCAAANCTATTTTAAAATTTCAATATTTAAAAATTTNTTGAATCACTGGGTGT
CGNTAAGTGGCATCATNNATGAGATTTGATTCCATGTACCATATAATNTTAGATTGGTCC
TNTCTACCCCTTTTAAACTCCTTCAAGCATTGCTATTACTGGGGTTGCCTTTGGGAAAA
CTTACTTCTAGATACTACCATATATCTGAAATAGTAGAGGTGGATGTTAATAAAATTCAT
AAAATNATCATGTATTACTTTTTTTGATTTACCACTGGAAGGAAATACAGNCATGTGCAA
TATAATGACCGTTTTTGGTCATNGAGACCCACATGTGTGACAGTGGTCCCATAGGATGNG
GCTGAAAAANNCTCTGTTGCNGCCTAGTGACACTGTAGCCATNGNAACNCCATAGCACGAC
ACGTNACTCACCTNTTCATGGTGATGCTGGTGT

Sequence 248

CCCCGCGTCCGATTTTGAATGTATTGAGACTAAAGTTCCTTTGAAACATTAAAGAAGATC
CATCAAACCTGGCAACTGTATATAAGGTCTGATATCTTCTGGCACTCAGAGGGAGAGTTTC
TGGTGGAGGTGGAAGTGACTTAGGAGTCATCCATGAACATAAATGAGATCACTCGTGTAG
GGAAGAGTTAATGAGATTAGAGAGCCTTGGACAGAGCCTTGCAGCCCAAACCCATGAAAG
AGCAGTAATAGTGAGTGAATTACCTTCTGAGGCAGTGCAAAGTAGATAAGAAAAACAAAN
CTNNAAAAAAAAAAAAAAAAA

Sequence 249

CCGCGTCCGCGAGTGGTNGTGATCTCGTCTCCTGCAACCTCTGCCTCCAGGTTCAAGCAA
TTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGATTATGTCTTGTGTTANNGAAA
TCATTCAATTTTTCACCAGAGAATAAGGAAAAGCAAATTAGACTGTGAATAAAATCTCCA
TGTACCCACTAGGATGACTACAATTCAAAGGCTGACCTATCCAGGTGAAGATGAGAGTG
TGCAGCATTGGAATTTCTTACACATTGCTGGAGATTTAGAAGCTAAAGAAAGAGGACAAA
TGATTTGGAAGCAAAGATAAGAAGGAAGAAGGAGATGGGGTCTTGCCATGTTTCCAGGC
TGGTCTCAAACCTCCTAGATTCAAGTGATCCACCTGCGTTGGCCTCCCAAAGTGCTGGCAT
TATAGGCATGAGGCACCATGCCAGGCCTGTTTTGAAATTTACATACATATTTATAAACAT
ATTTTCAGGATGAGAGAATATACCAAGAAGTTACATAGCATTGTGTATCTGTATAGAATA
AAA

Sequence 250

TCGACCACGCGTCCGGGTGAACGTGGTCACCAAGGCCATGGGTACCCTGGGGGTGAGCTT
ATCCTCCTGCAGCGTCCCTGGTTCCAAACCCACCTTCGAGCTCTCAGCCGACGAGGTGGA
GCTGGGCCTGGGGATCCACGGGGAAGCTGGTGTGCGCCGGATAAAGATGGCAACCGCCGA
TGAGATTGTGAAACTCATGCTCGACCACATGACAAACACCACCAACGCGTCCCATGTGCC
TGTGCAGCCCGGCTCCTCAGTTGTGATGATGGTCAACAACCTGGGTGGCCTGTCTATTCT
GGAACCTGGGCATCATAGCCGACGCTACCGTCCGNTCCCTGGAGGGCCGCGGGGTGAAGAT
TGCCCGTGCCCTGGTGGGCACCTTCATGTGAGCACTGGAGATGCCTGGCATTCTCTCAC
CCTCCTGCTGGTGGATGAGCCTCTCCTGAAACTGATAGATGCTTGAAACCACTGCAGCAG
CCTGGCCTAACGTGGCTTGAGTCTTCATTACTGGGCGGAAAGCGGAGCCGGGTAAGCCC
CTTGCCGAGCCCCAAGAAG

Sequence 251

TABLE 1
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GTCGCCCCGCGTCCGCAAGAAATGATGTTAGTAAAGATACTTTAATTGCGGGGAGTTCTC
TGTTGGCTGGTGAATAAGGACGTTCTCTTTGAGTTCCACCTTTCTTTGAGAAATTTTCAT
GTTTCCTGTACTTTTCTCTATTATATCATGGAACTTACTAAATCAGCCTGTGCATTCC
GCCACATATCCCTCATGGTGCCTCCGGTCTAGCAGCTGAGCCAGGGCCATCAATAA
ATCTTCTTCTTTCCCCAAGATATTCCTAGTTGCTTCTTTACTATTCACTTCTTGTAAAT
CCATTCACTGTGTGTATCATTTAGGATGCTGGGCAGTTGCATCGCATTTACCTAAGGT
CACATCCTGATGGGATTTGGTGGGATCCTAGAGCTGGCTAGGACCACTTGTGAGAGCTGA
TTGTTAAATTCTCCGAAATGACGTGACTCAAGTTGTTAGACTGCTTAAAGG

Sequence 252

CCGGTGAAACCTGGAGCTGAAGTGAATTCTCTTAGAGTATATTTGAAACTGTACTAGGA
CTTTAAACACTTTTGAATTTAAACAGCCATAAAATCTTGTTATACTGAAGGAGTTC
CTGAGGCAGTGTGCCTCTCATTTTACCACCTAAAGTTGCCATAGAGGTCCAAGGAGACAC
TGCTGATAGCAGAAAGTCTTCCAGAAAGAAATTAGGCGACCCACACCAAGCATGTATGGC
TTTGAGTCTTACAGATGGCTTTTTAATAGTTTAGTCTCTTAACCTAAGGAAGTTTCTGAA
GTTCCGGTCAGAGAGTCTAAAAATTCACATTTTACCTAATAAATGATAATGAGGCTATTT
ATCTTGTCTGTCTGGATTTTTTCACTTGACATTTAATGAAATATCCCATATTACCTATAA
TTTTATTGAAG

Sequence 253

CCCCCGCGTCCGAGATAATGCTGTTTGCTTCCGGCCGCTGTAAATCATAGGTGAAAACC
AGTAGCANGTGCTCACTCAGTGCCTCCAGAAAGCGGTCTGCGGGTCTCAGCTGGGCTGGG
GGCAGTTTTATTGGGCAAGGCTTGGGCTTAGCTTCAAGCANGGGCTGGGAGAGGATGG
ATGGGGGTGTGAGAGCAAAAGAAAGACCTGGCTTTCAGTGATGGCANCCACGTTCAAA
TNNNAGCTCACCCTGACCNCTCGNNTGACGNGCGCCAGGNGTTAGGAGACTGNAACTGN
TTNTGNGTNNNGNNTCCGGNCGTNCATNNNNCTGCTCAGCATACANANCCTNTTCTNA
TCNTAATCCTCATACNCATGNCTGNNNACTNTACACTGTTCTACTTATCAATGACAGGTC
AAAAGTGTTATCATNTGTGACNTAGAATGAGTGAAGTACACNCCCTCTTGAAACTATGA
ATGACTTAAAGAATCACCNNTTGCAAAAAATC

Sequence 254

GCCTTCGCCCTGCCTCCTCTTGGCTGCGGCTGGTCATCTTCCACCTCCACAGTGGGGC
GAGCTGCCAAACAAGGGGTACACATGTGCCCCCTGACATAGGCCAGGTGGTCTCTGCCCT
CTGTAGCTCCCATGAGAGAGGGCTCCTCGGACCGAAACAGGAGGCCACTGCCCTTGC
CACACCGTGGCCGGGTCTCCTGGGCGGAGCGCTTTCGCTGTGTGGGAAAGTCAAGGGCA
GCCCCGAGCCTCGAAGCCCAGGCTCCAGCCCCGCGCCATGTTGCATTCCCGCCTCTACT
CCTTGGTAGGCTGGNTGCTTTGAGTGGTTCTTTTTAATCTTTCTGTTGGTTTCTCCTTT
TCCTTTGCCTGGGTTTTGCTTTAACCTCTCTGTTGCAGAGATGCAGAGCACTCAGAGAGC
CTATTTCTATCATCGCTTTCCTATTCTCCACCTAGAACCAGNTGACTGGCCGCCGAGTG
GNGTCTCTTGTGTGTGTGGTGCCGTCAAAGCTGTGCAAAGAAATGCTTCTGCCTAGGTTT
CTTCGCGCCCCCCTTGTGCTTTTCTGCTGCTTACACCCCCGGTCTCTGATCTG
CCCTGGGC

Sequence 255

GCCCACGCGTCCGCAAGANAGCTCCTCAGATTTGTCATAGACTATATTTAAAGAAAGGCC
ACATTTTTCTTATTTAAATGCATTAAACAATGCANCCAATTAAGAACTGAGNTGGAT
TTGTACAAAAGCAGGGACTAGGTCTGNTTTGTTCACTGCTATATCCCAATGCCTAGAAC
CATGTCTGGCAAACATACTGGCATGGGAAGAACATTTCCATAACCCCTGAATGTTCTGTG
CCCCTTTCCAATTAATCCCTACCCTCAGAAGCAACCACTATTCTCATGCTTATTACATTA
GTTTTGCCTCTTCTTGACTTTCATATAAATGAAATCATACATCTAANAAAAANANAAAA
AAAA

Sequence 256

TCGACCCCGCGTCCGATTTGATATAAATAGTTATGTTACTCATATAGAAATCTCTTCCCC
ATTACACACATACAAACATTTATCTATGAGTGGCTTATAATTGCAAATAAGATGTAAATC
ATGCTCATGATCATTGTCAAAATTTGTGAAAGATTTTTTCTATACCTCTTTTAGGTTTGT

TABLE 1
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TTTGT TTTTGT TTTTGTATTCCAGGTGGCATTAAAGACAAGAGGGAATAATATTCATTCT
TACTTCTACTCCCAAGTCACTAGTTTGCTGAATTTAATTGAGTTAAAGAATTGTATCAGT
CTTCTTGGAAGTCTAATACAAAACCAGTTCACACTAGTTATTCATTCTTTGCTAATTCA
CCAGAATTGAAGGATGGATAAAATGAGAAAGAGAAGTAGTTCTTCATATTATTAATAA
AGAGTTAAATTAGACACTTTGTTGGACTCTTTGGTCTTAATAATTCCTACTCTTTTGGAG
GTCCAAAAGTTTTGTCTTTGATAAATAATTTTAATGGG

Sequence 257

AAGTTGGGAAAATAATTCATGTGAAGTACAGCAAGTGTGTTAAGAGTGATAAGTAAAATGC
ACGTGGAGACAAGTGCATCCCCAGATCTCAGGGACCTCCCCCTGCCTGTCACCTGGGGAG
TGAGAGGACAGGATAGTGCATGTTCTTTGTCTCTGAATTTTATGTTATATGTGCTGTAAT
GTTGCTCTGAGGAAGCCCTGGAAAGTCTATCCCAACATATCCACATCTTATATCCACA
AATTAAGCTGTAGTATGTACCTAAGACGCTGCTAATTGACTGCCACTTCGCAACTCAGG
GGCGGCTGCATTTTAGTAATGGGTCAAATGATTCACTTTTTATGATGCTTCCAAAGGTGC
CTTGGCTTCTCTTCCCAACTGACAAATGCCAAAGTTGAGAAAAATGATCATAATTTTAGC
ATAAACAGAGCAGTCGGCGACACCGATTTTATAAATAAACTGAGCACCTTCTTTTAAAC
AAACAAATGCGGGTTTATTTCTCAGATGATGTTTCATCCCGTGAATGGTCCAGGGAAGGAC
CTTTCACCTTGACTATATGGCATTATGTCATCACAAGCTCTGAGGCTTCTTCTT

Sequence 258

GAGTCGACCCCGCGTCCGCTCTGGAGGAAGCATAGATTAGAATCATGATTTTTATCTATT
TTAAGAGAATAGAAGAACAGAAGGGGTTACAATCTTGCAATATTATGCAACTCTTCTGCT
CTAATATATCAAAAACCTTGATGATCCAAGATCATGCAGAACAGCTGAGAAGAAATCAAAG
TAAACAGTGTACCTTGACGCCAACAGATCCTGCCAATATGAGATTAGAAGTCTCCATCCT
AGCAAAAAAAAAAAAAAAAAAAAA

Sequence 259

CTGGTACCTGCGAGTCGCTGCAGCAGCTGTGGCAATTGTCACCTTCATCCAGGCCCATCC
CGCTTTGAGGGCCTAGAGAGAGTGGGCCAGAGGTTAACCCCGATTCTGCTGCCTCCCCA
CGCTGGGCATCTGGGTGTGCCAGGGCATTCCCCCGCTGGTCAGACAGGTTTTTGGGCCAG
GGCGGGGCTGACCAGGGTTAATTAGAGGGAACTGGCTAGGAGGAGCTGGGGAGGGGGCTG
GGCAGAGTCCAGGCCTNCAGAGCCCTGGGACACAGCAGGTGTGTGCTGCCATGGGCCGG
GGCTTGAAGTCTGCCAGACTCAGGCGCCAAAACGGCGCTTGCACCTCAGGTCCAGAAG
CCCCGGCAGCAAGCTG

Sequence 260

TCGACCCCGCGTCCGAAACTCTGTCTAGTCTAAACTATTATTCTATACTTCTCATCTCTA
TATGTTAAGGATTGATCTCCAAGATAAATTGTTTTTGTGNTTTTAGGGACAGGATC
ATGCTCTGTTGCCAGGCTAGAGTGTAGTGAACAATCATAACTCACTGCAGCCTCGAAC
TCCTGGGCTTAGGTGATCCACCTGCCTTGGCCTCCTGAGTAGCTGGAATCCAGATGCAA
GGCACCATGCCTGGCTAACTTTTTAAATTTTTCATAGAGATGGGGTCTTACCATCCTGC
CCAGGCTGGCCTCGAGCTCTTACCTCAAGCAGTCTCCTGCCTCAGCCTCCCAAGGCAC
TGGTATTGCAGGAGTGAGCCACCACGCCCAGCCCAAAATAATTNTTTTTAAAGCAAGAT
GTAGAAAAGTGATTATAATATGTTTCCATTTAGGCAAGAAAAAATGGAGAGGACTATA
CCTGTACTCTCTGNACATAGGATCCACAGAAAACCTTCTAATGGATGGTTATCCCTGNGGN
GGGAAACTGGGGGACAGGGAATGATGAAGCAGGAAAATTTTACTGGATAAACTTTAGTT
CTGGTGGCTCTTTTCTTCTATCATGNGNATGGTAAGT

Sequence 261

GTCCCGCAAAGCCTTTAAAAAGAGTCCGAATTTCACTTTTACCTTTTGTAGATGTGCAC
GTGTAGCTGTAGAGCTCATACTTACGTTTCACATGGCATAGTTGATGGATATGTAGGTGT
AAAGTTTATGGTAGTGGACAGGCTGAGAATGGTGTATCTGTGACAAAAAATCTGATGGAA
GTGATATATTTGATATGAAAGTGAACATTTCTTAGTTGGGTGTTTATAACTTTTTTTG
GTAAATTGTTTTAGTTTTATCCTTATTTTACTTATGCTTGGCAATAGATGGTCTTTT
TCCCCAATCTTCTTCTGAATTCGAAGGAAACACTGTTTTAGCATTTATTTGATTACTTT
GGTTCATTCTTTTCTCCACTCCCATTTATTTGTTTCCATTTTGAACCTCTATAAAGCA

TABLE 1
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GATAAAATCTGGAACCTCTAGATCTGACCTTCATGCCTTGCTTTTCTATGGTACTTAT
TCTTTCTGTCTCCTTCTCATTTTGGATTGGGCTTATGAGAGAAATCTTGGGGTTGATCTT
CCAGCTCACTAATTTGATATTCATTTGTGTCTCTTCAGTTACTTAGCTTGCCTGAAAAC
TTTTTTTTCAGCAATTGTGTACTTAATTTTCATA

Sequence 262

CCNCGCGTCCGTGCCCTGGGGCCCCCTGGGCGAGCATACCCTAGGCGTCAGGCCTGGAG
GTCTCCTCGGTGCCCTCCAGCTCTTCTGTGCTCCTCACACTCTGCTCTGNGCANATTGGC
TGTATTTGTAGGTTACTGCCTTTTATTTCTCACATTTCTTTTTGGTGAGAGTATATCAAT
CAATCAATCATCCTCAGACCTCTATGATAACACTGTGCCCCACACACAAGAAGCTACTCA
ATTAATGTTTGTGTTGAAATGAGAGAAAATATTTGCTTAGTACAGAAAGAAGATGA
AGCCAACCTCTGATAGAAGCCACCCATAGACTAGGGTGTTGAGCTGCCTTCCAA

Sequence 263

NCCCCGCGTCCGGTAGTTGCAGAAGCATGTTCTTGAACCTATCAGTCCTGACCTCAGATT
TCATCTTCTTCTGGTAGATGTAGCATACATCTCTGAGTGTTATTAGAGGACCAGNCTAGA
GCCTCATCGTACTCCTTCAGTTACTTCATAATCATCCAGCTCTTTATTTAAATGTTTTT
CTGTTTAAATGGCAGCAATGTTTTTATTTTTTGAATGGTCCCTGACAGCAACAGATC
TTCTCGTGTTAATTATTGAGTCTGTGCTGATTACACAGAATTAAGGATATAGTTTCTAA
AGTACTTCCATTTTTATATTTTTAGCATTATTCTGAAAGGCCTGGAAAAAACTATTTT
TTATTCGATTTGAAAGTGAAGTGACATAGGTGGGTCGCTATAGCAAGAAATTACCCTGTA
TTTTCCATCTCTATCATCACAGGCATCTCACAGAATTAGAAGTCGGACATTATTGATGG
ATATATTAGTCATGAATAATTAATAACATTAATAATAAAATGGGTCAGATACGGGCAGA
TTT

Sequence 264

CNCGCGTCCGGGAGAAAAGAGTTTTATACCTAATTCTTNTGCAAGTGATTACATATTTTT
ATACCCAGGATGTTCCAGCAAGATGAACTTTATTTTTAGATGTATCTATGGNTTTTCCAC
CCATTTTATTAATTTTTAGAAATATAAAAGTGCCTTTAAATTTAGCTGGGTAAAGATAG
TAAGTTTTAGGCTGAGGCAGGAGAATTGCTTGAACCCAGGAGGCGGAGGTTGCAGTGAGC
CTAGATCGTGCCATTGTACTCCAGCCTGGGCAACAAGAGCGAAACTCAGTTTCAAAAAA
AAAAAAAAAAAAAAAAAAAA

Sequence 265

GATCCTCTAAGTNCCCAATGATCNGAGAAGAAATATGAAAGGGAATTTTAAATATTTTG
AACTGAATGAAGATGAAAATGCCACAGATAAACTTTGCATGGGNGAGCTACATTAGTTA
GCTTAGAGGGGAAATTTATTTTTAAATTTCTTATATTAGGAAATAAGTCTTACATAAATA
ATCTCAGCTTCCACCTAAGAAGTTCAAAATAAACCCACAGTAAGCNGAAGAAAGGAAATA
ATAAAGCTGAGAAAAAATCAATAAAGTTTAAAGAGAAAAATTAATAGATATCAATGGAAC
AAAAGTTGCCTTTTTTAAATATCAACAAAATTGATAGACCTTTAGCCAGAATGATCAAA
AAAAAAAAAAAAAAAAAAAA

Sequence 266

CCCGCGTCCGCCTGAATTCAGAGTCNGTTGAGAAGGTAGGGAGCAGGGATCTCTCAGAC
ACCAACATGTTTCAGCTTTATTATAGATAAGGCTGAATTGATTTCTGGAATNGACCTTAC
TTCCCACCTCCAACTGCAGGCCTTCCCCTTGCAAGTTTCAAGACATGTTAAGGTAAGTT
CACTGCAGAGATAAACAGGGTGAGGACAGGCCAGTCCTAAAAAAAAAAAAAGAAAAAAA
A

Sequence 267

CCGTTCTTTTTCCNAACTAAAGAATGCATAGGACATAAGTTAAAAGTTCATACATAACC
TGGCTTCAAATCCAGTTCTACCACTACCTGAAAACATCAGTTTATTTCTCATCAATGGGT
TGTTATAAGTACCTAGCATAGGGTATTGCTTAAATGTTAATACTCCCAATCCTGACACT
AATGTTTCAGGGAAGAGTGAAAGAAATCACATTAACCTCCACATTATTGAACATCTTCTGT
GTCAGGCTGAATACATCTTTGTATCCATTGTCTTCTGGTTGTTTAAAGACTAGTGTAGAA
GCCTGACATGTAAATCGGTGATTATATAAGATAGTACTGTCTTGTAAATGTGTTGTGCTAG
AGAGGTTAAGTATTAATTATTATGGGAGCTCAGGAGAGGCACCCACTGGCTGCTGGGAGA

TABLE 1

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AGAGCAAAAACCTATATATAAAGCAATTTTAAAGATTTTGGTTCTATAAGGGTAGAATGT
TCGATCCATTAGTGATTCCCAAAGTCCTATACACATGTCAAGATCGGGAAAGCTCACAC
ACACAATAATGCCCAAG

Sequence 268

CGTCCGGCCCCATGCCAGCCAAGTTATGTTGTTTGGTCAATTTTAGATAATTA
AAAAATCCTATGTAGTAACATCCTACTAGGAAAGAAGATAAACTCAANTATCCACTGAGTG
GTGACCTGAAACCAAAGAGACATGGAGGGGCAGCCAGTCAAAGCCACTGCACTCCAGCC
TGGGCAACAGAGCAGGACTGTGTCTGGAAAAAATCTAGAAACATACTCAAATGT
AACATAAGAAGCTTAGCATATGGTAAAGTTGTGACTGTGAGTCAGTGCAGAAAAGAATGA
ATCAATCAGTAAATGGTCCTGGGAAAACCGGCTATTTATTTTAAATAATAACAAATAT
GCTGTATATCATCAATGGATTAAAGATTTATACCTTCAGCATATGTCCTTAAATGTTT
TAGAATAAAATATATATGAATTCATGTAATTTTGTATGTGAGGGAAGGCCTTTTAGACA
TGACACAAATGTCAAAAAGCATAAAAGGAAAGATTTTGAATAAATAATAAAC

Sequence 269

GCGTCCGACAGATACACCATCATTATAGGTGGCCAAATCATTCAAATCGCTGTTTGCTTC
TTCTCGGGCTCTTATTCAAGCTCACGATGCTATTCTCATAGTGATTGCGAATCTCACTGC
ATAAAGGTGATTTTGAAAACATCACTTTTCTCCACACTAATGTGTGAGCTTAGCCAGAG
TAGGAGATATATCTTACTTAAAAA

Sequence 270

CCCTTTTTNCGGCCNTNCGGGCAGGTACGCGGGGAGGTGATGCCCGTGTGAGCCAGGAA
AGGGCTGTGTTTATGGGAAGCCAGTAACACTGTGGCCTACTATCTTCCGTGGTGCCAT
CTACATTTTGGGACTCGGGAATTATGAGGTAGAGGTGGAGGCGGAGCCGGATGTCAGAG
GTCCTGAAATAAGTCACCATGGGGGAAATGATCCGCCTGCTGTTGAAGCCCCCTTCTCA
TTCCGATCGCTTTTGGCCTTGATGATTGAAAATAAGTCCTGTTGCACCAGATGCAAGA
TGCTGTTGCTGCACAGATCCTGTCCTGCTGCCATTGAAGTTTTTCCAATCATCGGCAT
TGGGATCATTGCATTGATATTAGCACTGGCCATTGG

Sequence 271

ACCGCGNGGCTTCATGCAAGCTGTGGGCATGNGCAACGATCACGAAAATCATNTTCCT
TAAATAAAATACAATCCTATNNAAGGAGTNCCTCCATGAGCAACAATCAAATACGTGC
TTATGCTGCGATGCAAGCAGGTGAACAACCTGGTTCCTNATCAANTTGACGCAGGCGATT
ACAAGCCCATCAAGACGAAGTCAAAGTTGAATATTGTGATTATGTCATTCAGATATTTT
AAGTGATTAATAATGATTGGCCGATCATCTACTTATCCTGTAGNCGCAGGTCATGAAATC
ATTGGAACCATCACTGCTCTTTGGTTCATGAAGCGAAAGGACTCAAAG

Sequence 272

CCCTTAGCGTGGTTCGCGGCCGAGGTACACCAAGACCAATTGCTAAAATCTTGGATTATGG
AAAATTTAAGTATGAAAGAAAGAAAAACAAAANGTTGAAAAAGAAAAACAATCTTTCAC
AAACAATAGAGAAATTCGTTTATCTTTTGAATCAATTTAAATGATATAAAAATCAAAGC
AAAAAAGCCAAAGAATTTTATTAGATAACCGACAGAGTAAAAGTGGCTCTTCGTCTTA
GAGGGCGTGAAAATACAAGACCTGAACAAGGTAAATTAATTTTAAATTTCTTTTTTGATG
AAGNAAAATCGATTGCAAAATTAAGTAAAGAANNGCAATCAGTTTGGTAATTTTAAAC
TCTTCATATTGAACGTGATAAGAAAAAATTACCCAAATTTACTTCTTCAAAACAAATAAA
GGAATTAATTGATTTTGAAAAAACTATTNAAGGAAGGAAGAACTAATGCCTAANGCCAA
AAACAAAATCGCACTTTAAAAAA

Sequence 273

CCCTTAGCGTGGTCNCGGCCTTTGTACGAAATTATGACTGTTTTAGCTNCAGGAACAGAT
TAAAAGTAATTGAAGACGTTTTAAATCTGTTTTTGATGCTAAGAACATCGAAAAAT
GAAAACTTGAAAGAACAGAGTTAGCATACGAAATTAACAAACAAACAAAGGAATTTT
GTTTTAGCTAACTTAAATCTGAGGAAAGTTTAAATCGAAGAAATTTGTCAGAAGAGTAAAT
ATTCTCAAAAAACAAGTTTTAAGATTTTATGTTATTAATCTAGATTCTGAAAGAGGAATG
CACAAAATTTTCAAGCCTAGAAAAAATGATAAACACAAATTTTCTCTTCAAAAAACCA
ACANCTTCAACAGAAGAAGGTAAAAGTTTTCAAAAACCATTTGTCAAAAACCTTTTGT

TABLE 1

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AAAAATCAGAAGAAACAGATTCTTCAAACAAAATGANCAAGACAAAGTGCTAAGAAAA
CCAAAAACTGTAAAAACCAGCAAAAGATCCTAAAGTAGCTCACACAGCAAAAAAAAAAAAA
NAAAAAGTCCTGC

Sequence 274

CCCTTAGCGTGGTCGCGGCCGAGGTACNAAATTATGACTGTTTTAGCTCCAGGAACAGAT
TTAAAAGTAATTGAAGACGTTTTAAATCTGTTTTGATGCTAAGAACATCGAAAAAATT
GAAAACTTGAAAGAACAGAGTTAGCATACNAAATTAAAAACACAAACAAGGAATTTTT
GTTTTAGCTAACTTAAATCTGAGGAAAGTTAATCGAAGAATTTGTCAGAAGAGTAAAT
ATTCTCAAAAAACAAGTTTTAAGATTTTTAGTTATTAATCTAGATTCTGAAAGAGGAATG
CACAAAACCTTTCAGACCTAGAAAAATGATAACACAAATTTTTCTCTTCTAAAAACCA
ACAACCTTCAACAGAAGAAGGTAAAAGTTTTCAAAAACCATTTGTCAAAAAACCTTTTGTT
AAAAATCAGAAGAAACAGATTCTTCAAACAAAATGAACAAGGACAAAGTGCTAAGAAA
ACCCAAAAACTGTAAAACCAGCAAAAGATTCTA

Sequence 275

CCCTTAGCGTGGTCGCGGCCGAGGTANTTNCCTGANCAGTCGAAGTGGATGCCAGACCA
ATGGCCAGTGCTAATATCAATGCAATGATCCCAATGACGATGATTGGAAAAAATTCAAT
GGCAGCAGTGACAGGATCTGTGCAGCAACAGCATCTGCATCTGGTGCAACAGGACTTATT
TTCAATCATCAAGGCCAAAAAGCGATCGGAATGAGAAGGGGGCTTCAACAGCAGGCGGA
TCATTTTCCCCCATGGTGACTATTTTCAGGACCTCTGACATCCGGCTCCGCCTCCACCTCT
ACCTCATAATTCCCGAGTCCCAAAAATGTAGATGGCACCACGGAAGAGATAGTAGGCCAC
AAGTGTTACTGGCTTCCCATAAACACAAGCCCTTTCCT

Sequence 276

CCCTTTGAGCGNCCGCCCGGGCAGGTACGCGGGGAAATGCAAAAAATCAAATCAATTT
AATAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATAT
TTCACCACTTTTAGCAAATGGAGAAGTGCTAAATTACACAATTAATCAAATGGCTGAGTT
AGCTAAAGATGCAGATGTTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTTGGGACACC
TACTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAACCTAAAAAATTACCAGG
AGACGTTATTAGTTTTGAGTATGATTTAGAATATGGTAAATCAACTCTAGAAATCCAAAC
TAATATGTTGAAAAAGGCCAAAAAGTAGCAATTATTGATGATGTTTTAGCTACTGGCGG
AACAATGAAAGCGATTATTAACCTTAATCGAATCTCAAGGTGCTGGTTGNTCATAAAGTAA
TCTTTTTACTTGAATTANGATTTTTAAACCGGAATTGAAAAACTTAAAA

Sequence 277

CCCTTTGAGCGGCCGCCCGGGCAGGTNCTTCTAANGTTAAATCCTGAGGTAAGTCAACC
AAACAGGATGTGAATATCCTAATAATAATTCTAAAGTCTTATCTTTAATGTTGCTCTG
TAACCAACACCTTTGATTTCTAATTCTTTAGAAAATCCTTTANAACTCCGGTTAACATA
CCTTGTAATGATGAATTTGTAGTTCGNGTAATTGNTAATATTTTTTCTTCTGATGTT
CTTTTAGTAAGTAGAGTGTTTTCAACTTTTTCAATTGAAATAAATGATGAAAATTCTCTT
GATAATGTTCTAATTTACCTTTTATAGNTACTNAAGAATTGTTAATGTTTACTTCAACA
CCTTCTGNTATTTGTAACACAGATTTCCGACACGAGACAATATTAATTATCAAATGTAA
GCAATGGATTTACCACTACATTTTTCCCTTTCTGCTGNTTGATAATTAGGTTNAATAA
ATCCTTT

Sequence 278

CCCTTAGCGTGGTCGCGGCCGAGGTACAAGATAGTNNTCTCAGTAAAAGGTCTATTATCT
AACTTGCCAACTTGTTTACTGAGAGCCCTAAGGAACTAAACTGCCATAATGCCGTGCA
CAGCTTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTTCTCCCTTCCAGTTCCTCAGC
AGGCCTGGCTGAAGGCCAGGAGGGAAGGAAATATAAGANCCAACAATAAAAAATAGCACT
AGCAATAANAAGAATGCCATCCCATGGAGCACACCATAAT

Sequence 279

CCGAGGTAATAAATCTNNTTAATGNNCTAACGTCATATTTTTAAGTTTTTCAATTCGG
TTTAAAAATCCTAATTCAGTAAAAAGATTACTTTATGAACAACAGCACCTTGAGATTGG
ATTAAGTTAATAATCGCTTTCATTGTTCCGCCAGTAGCTAAACATCATCAATAATTGCT

ACTTTTGGCCNTTTTCAACATATTAAGTTNGGATTTCTAAGAGTTGATTACCATATT
CTAAATCATACTCAAACTAATAACGTCTCCTGGGTAATTTTTAGGGTTTNCCTACCAT
AAATAAAAAGGGGTTTTTTAAAAAAGCTGGCAGTAAGGGTGTCCAAACAAAGAAAA
CCCTCTTGCGGTCTTGGGACCTATAATAACAATCTGCATCTTTAAGCTAAACTCAAGCCA
TTTGGGATTAATTGGTGTAATTTAAGCACTTTCTCCATTTGGCTAAAAAGTGGGGNGAA
AATATCTTTAAAAATACAATCCCTTCAATTGGGAAAAATCTTTAACATCCTCTGGATG
GNATTTCTATTAATAAATTGGATTGGGA

TATTTGGTGAAGATCAGCGTTATCAGCATTTTCTACGATTAACGCTGGCCATGCTTTGA
CTGATGAAATCCGCCAAGCTATTCAGCAGTTGGCGATTGGGTGAGAGAAAGTCTCAAGT
CGAAATTGAGTTAGTCTGAAGTCTGCTTCAATACGATGCGATAACGTGCTTGACCTGAAT
GAAGTCGCTCAATGGCATCGTTGAGCTGTGACATAGGATAGAGTTCAATTTGCGGGGCGA
TATTTTTACGTGCTGCAAATTTGAAGAAGTTGACGAAGTGCTAAAGGAGAACCCGTCGGT
GAACCTGTTACTGATTTGGCACCATCAATCAAAGCACCCGACTGAAACTGGGAATAGGTT
CTAAAAGTCAGACCTAGAAAAATG

NGGTACCTCCACCGCGGTGGCGGCCGAGGTACANCCTCTCGGCCCGGCTAAACATCATCG
TCTTGGTAGGTCATTACCNTACCACTAACTAATGNTCCGCACCCCCATTTTAAAGTGAA
GCTGNGAAGCTCCTTTCTATTACTCATCATGCGATAAATACTATATCCGGTATTAAGCT
ATTGATTCCAATAGTTATCCCAGNCTTAAAGGTAGGTTAGGTACCTGCCCG

CGANAAGCANGATTTTNAATTNTTGCAGCCCGGGGGATCCGNGGAGNNGGGAGAGCCCAC
CGCGGGGGAGCGCCAACACGACNNAGAGCGAGNCGNAATACGCGCGCACACNGACCGCNG
ANNAACAAACGNNAGACGGGGAAAAACCGGCGNCCNCAACAAAAACGCCCGNGCAGCA
CAGNCCCCAAAAGCCAGCNAGGCGGAANANCGAACAGGCCCGCACCNAGCGNCCGNGCCA
ACAGNAGCACAAGCCCCGAANGGCGAAAAGGG

[illegible]

CGGGCAGGTACCTAACCTACCTTTAAGACTGGGATAACTATNGGAAACAATAGCTAATAC
CGGATATAGNTATTTATCGCATGATGAGNAATAGAAAGGAGCTTCACAGCTTCACTTAAA
AATGGGGGTGCGGAACATTAAGTTAGTTGGTAGGGTAATGGCCTACCAAGACGATGATGT
TNAGCCCGGGCCCGAGAGGCTGTACCTCGGCCCGCCACCGCGGTGnnnnnnnnnnnnnnnn
nnnnnnnnnnAGNCGTATTACGCCGCGCTCACTGGCCGGCGnnnnnnnnnnnnnnnnnnnn
nnnnnnnnnnnnnnnnnnnnnnnnnnnnnnACTTAATCGCCTTGCAGCACAAATCCCCCTTTTCGCCAG
CTGGGCGTAATAGCGAAAGAGGCCCGCACCCGAAC

CGTCCGTNAGGCCTGTNCTTACGGCTGGGTTTAGAAACCAGCCATTGAGAAAGACTGAA
TCAGAACATGGATNAAGTGAACCTNATTCTAAGATGACTCGNNTATCCATGTNGATTAATC

TABLE 1
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TNCTGGNTCATAATAGGCCTCTTCCCTTTGATTGAAGGGTCACGTNTAAGTATANAAAAC
ATAAACTGTAAGGTAGAGGAAGCGAAGGATAGCTTNGTATTAATGTTGCGTTAAAGCTT
CAGAGACAAGAACAAGAACAACCTCCTCCACGTGACAGCATTGAATAGGAGGCGGNGGGT
GCNGCAGCCTGGGCAGCTTCAGTCCCGATTTACAATAAAGTACCTTGNGNGTNATTAGTT
CTTAATGTTTATTTAGAAATGGCATTGATGTT

Sequence 286

GCGTCCGGTCACCGCACTGAACTTCGGGACCAAAAGCTTCCATGCCGCGGNCCCCAGACA
AAGGCAGCTTCCCGCTGGACCACTTCGGTGAATGTAAAAGCTTTAAAGAAAAATTCATGA
GGTGTCTCCGTGACAAGAACTATGAAAATGCTTTGTGCAGAAATGAATCTAAAGAAGTAT
TTAATGTGCAGGATGCAAAGGCAGCTGATGGCACCGGAGCCGCTAGAGAAGCTCGGCTTT
AGAGACCTAATGGAAGGGAAGCCAGAGGCAAAAGGATGAATGTTGAGAAGGGAGCCACAGG
ACCTTGTCCTCCAGCCTGGAGCAGAGCTGAGCCCTTCTGCCACAGNGCAGGGGGACCTGA
CACTCAGCCCGTGCTGGCCCGTGACAGGGGCTCTCCCTGGG

Sequence 287

CGTCCGGTGCACTGCAACTTNTATATNTAACCCTAACTCCAATAAAACAAATTCAGGG
AAAACCAAGGGTGTAATGGGATGTGCGTGTTTATCAGGAGTGTGCTCTCACGTGGATGCT
GAATGATGGAGGACAGCGGACTGCATAAGCCAGAAACCTGTACGGGTGCTGGCTGTGGAA
AGACGTGTCTGTCTCTATCTATGTACAATAGTTNATTCTGTGTCAGGCTGAAAAAGTATGGT
CTTTAGGACCTTGCCCTCTAACTATAGAACTTAAACAGTGTACTGCTATTAGATATAT
CTGATATTAATAGAACATGCCAAGTGCAAGTCCCAAATGCGTATTTGTGAAGCACACATC
TGAGTAAATGGCTTAGATGGAAAGCAAGTCATCATGAGTAAAAATTAAGCCTCAAACCTG
CCGGTGCTCCTCACCTCTTTGTCACCAGGTAAGGTACACTGTGTGTTGCTTTTGNTGT
CTTCTCTTCTAACCTAG

Sequence 288

CNCGCGTCCGGGGCTTGTTTACTATGGCCGATGATCTGGAGCAGCAGCCTCAAGGCTGGC
TGAGTAGCTGGCTGCCACGTGGCGCCCCACTTCCATGTCTCAGCTGAAGAATGNNGAAG
CTAGGATCCTCCAGTGTCTCCAGAATAAGTTCCTGGCCAGATATGTGTCCCTCCCAAACC
AGAATAAAGATCTGGACGGTGACTGTGAGCCCCGAGCAAAAGGACCGCACCCCCCTGGTG
ATGGTGACGGTTTTGGGGGCGGCGTGGGCCTCTGGATCCTCAACATGGACTCACTGAGT
GCCCGCCGCACACTGCACACCTTCGATCTGCTTGGNTTTGGGCGAAGCTCAAGGCCAGCA
TTCCCGAGGGACCCGGAGGGGGCTGAGGATGAGTTTG

Sequence 289

NGGAAAGCCGGCATAAGTGACATNGTTTGGGCAGTTGCCNGCTGGACTGAAGGGCNAACC
CANACCACCTTAAGCCATAAAAGCCGTGACACTGCTANCNAAGGTGCCCTTGCCACCGC
TTTGCCACCNGTCCCGGAAATGNAAAAAAGTCGCGTGCCNTAAAAAGCTGCCGGAAGG
NCCTGGGTGNACNTTTGGGCCACCCCCACCCCGCTGGCAAGGNCTTGAATTGNGTNACNC
CAAAAGACGCCANGCCGGACCTTGGNAAANNATTGTTNTTTNGGGANAAAAAAAATG
GANCCCGNTGGGGGAGGCCCTTGGGGGCATTGNGNAAGCCCCCGGAGGGTTCCCGNTGT
TGGCNGGGGTCAAATTCAAAGGCCAGTGGTNGGCCACCCCGGGGAACCTGGNNGCTGTTG
CAAGNACCNNGGTGGGGAACCGTTTCAAGGAATACCCCAACCAACCCANGTAGCCACCTT
AAGGTAATTTGGCCACCTTGCCACCANAANGNGCCATTGGGGAAGAAACCACCAAAAA
CGTCCCCCGGGT

Sequence 290

CCCCGCGCTCAGTATGACTCTTTAGTCCCAGTTTTTCATGGGTAGTCTCTAAATTCCTTAC
CTTTATGTGATTGTGAGTTGGGAGGTGGTGGGCATCATCTTAGTCCATTTACCTTTTTCA
GTTTTGTAATTATCGTCTTCATCTACTACCTTTATATAATAAAGGGAAGGGGTCTTCC
TTTACAAATAGTTTTATCATCCTTCTCTTTTGATGTCTATATCTTCTATTTTTTGAGGA
GAATATATGTTGTATAGACCTACACGTGGGTGGAAGAAGAGTCATGTATGTGTGATTGTG
TGAGATCCAGAATGTTGAACTTTTAATTTCTTATTTTGTACTTATAATTACCTGCTGGA
ATACCTGGTTGCATTCTGTATATTGTACCCTCATTTAAAGTTTCATGGAGGCAAAATAAC
TCTGTTGCACATAAGGCCGGGGCTTATGCATGTCCTATCGGATGTGGGCTCAGATCACGG

TABLE 1
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AAGACCCGAA

Sequence 291

TCTTGCAGACTCAAGCTCCGCGCGCAGCCGCTCCTGGTGCGGGCCACAGCAGCCTGGGC
CCCGGNTCGGCCCGGAGCCCCCTGGCCTGCGACGACTGTTCCCTTCGATCGGCCAAATC
CTCCTTCAGCCTCCTGGCGCCCATCCGAGCAAGGACGTTGCGAGCAGGAGTTACCTGGA
GGGCAGCCTNCTGGCCAGNGGGGCCCTGCTGGGGGCAGACGAGCTGGCCCCGCTACTTCCC
AGACCGGTACGTGGCGCTCTTCGNGGCCACCTGGAACATGCAGGGCCAGAA

Sequence 292

NGGCCCCGCCGGGCAGGTACTAACTTTAATTAATGAGCTAACGTCATATTTTTTAAGTT
TTTCAATTCGGTTTAAAAATCCTAATTCAAGTAAAAAGATTACTTTATGAACAACAGCAC
CTTGAGATTGATTAAGTTAATAATCGCTTTCATTGTTCCGCCAGNTAGCTAAACATC
ATCAATAATTGCTACTTTTTGGCCTTTTTCAACATATTAAGTTTGGATTCTAGAGTTG
ATTTACCATATTCTAAATCATACTCAAACTAATAACGTCTCCTGGTAATTTTTTAGGTT
TTCTTACCATAATAAAAGGTTTTTTAAAAAGCCTGCAGTAAGGTGGTCCCAAACAAGA
AAACCCTCTTTGCGTCTGGGACCTATAATAACCATCTGCATCTTTAGCTAACTCAAGCCC
ATTTGATTAATTGGNGTAATTTAGCACTTCTCCATTTGCTAAAAGGTGGTGAAATAATCT
TTAAATACAATCCCTTCAAATTGGGGAAATCTTTTAAACATCCCCCGGCGGTACCTCGG
GCCCCGTTCTAGAACTAGTGGGATCCCCCGGGCCTG

Sequence 293

GCTCCCCGCGGTGGCGGCCGCCGGGCTGGTACGCGGGGAAATGCAAAAAATCAAATCAA
TTAATACGAATACATCATGAGATGTTAAAGATTTCCCAATTGAAGGGATTGNNTTTAA
GATATTTACCACTTTTAGCANATGGAGAAGTGCTAAATTACACAATTAATCAAGTGGCT
GAGTTAGCTAAAGATGCAGATGTTATTATAGGGCCAGACGCCAAGAGGTTTCTTGTTTG
GACACCTACTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAACCTAAAAAATT
ACCAGGAGACGTTATTAGTTTTGAGTATGATTTAGAATATGGTAAATCAACTCTAGAAAT
CCAACTAATATGTTGAAAAAAGGCCAAAAAGTAGCAATTATTGATGATGTTTAGCTAC
TGGCGGACAATGAAAG

Sequence 294

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAATTTCTAATTG
ATCCTGTTACATTCAGTGAAATGGCATTGCATATTTATATGTTGCTTACAGCTTATTGA
TTTAGGTAATATTGTGTCTTCTTCACTATCTGACCTGAAAAGCACTCTCTTCTCTATG
CACTCTTATATTCTGCCTTTCTGCCTGGAGTTTGAAATACATGTCTCTTTAGTTTCTTT
GCACATGCTACATTGTGCTTTAGACCGGGAGATAATACAGGNGCCTTACCTTACAAATTN
ATNTTNTGGCAACNCNAATTNTNTNGAAATTTTNTTTAATTTNAAAACCCCAAAACCA
TTTTCCNNCNAAAAAATTTTTTTTTGGGAAAAATTAANTTCTTTAAANNNAACCCCCCN
AAAAATTATNGGNGNNAAGGGNGCCCNNTTTGGGCCCTTTTTTTTTTTCNCGGGNG
GGGNAAAAAATTTNAAAAAANTTTTTTTGGGNNCCCCGGGAGAAAAANNTCCCCTNTT
TTTTTTTCNCGGGTTTTAAAAANGGGGGNNAAAAAATNTTNTTGGCCCCCCCCNTTT

Sequence 295

TATAGGGCGAATTGGAGCTCCCCGCCGNGGTCCCAAATGGAAGTGTGAAAACCANGGCC
CATCCCCCNNTTTNTAGAGGGGTGGTAAAAAATAAACCCANANATCAAGGGGAGAAAGG
AAAAGGATGAAAGGACAACTGCCAAAAAATTTNCCCAAAGTGGCGACTTTTTTAANTN
TGGGAGCCAGAATTCTGAGGGCTTTGCATTGTCTTTGCAATTCNCTCAAGGAGCCTGAAA
TTGAAAAAAATGCCAACAGGCCAAATNACTACTTTTTAGGAGGGGGTTTTGGAGGTC
TTGGGAAGCCTCATTCCCNNTCAACCNNTCNAATTCTGGGAATGGGGGAAATGAAAGAA
TAGAAGATGTTGGGTGCCCACTAGGCTACTGNTTAAAAGGGGAAGCTTGAAAANTTNT
NCACCAAGGTTGGGTATTCAAAAATATTGTAATGGACTGGGTATTGGCAAAAAGG

Sequence 296

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACAGGTGGGTCCCTTTTCAGAGGT
TGGGCCTTCTAGACCTCACCTGTTCTCACTNCCCTGGTTTAAATTCAACCCCAAGCCATG

TABLE 1
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GCCAATGGCCAAATAATAGAAATTGGTTCCCTACCCAGCTGGACCAGGGGAGGGAGGTCT
TGTGCAGTTTTCTTGACCACTTTGTTGGTTGGACCATNGGCTTAAATACCAATGGGGTATT
CGGCTTGAGACCTAAAGTTTGTAAAGAAATTNAACCAAAATGGTGCCTGCTTGGGTAAA
AATGGGCTACCACCTCAATCTGGACTTCAATTCTTTAATTCTAATTTTAAGTTTGGGT
TTGGTATTCTTTGGCCTAAAGGTGGCGGTAGTCCCAACCTCTTTGGGTANTTACCCCTC
CTAAATAGGTCAATACCTAGGTAGGTCAATACCTCCCTGGGTGGTAAGGNGGTATTTCTT
CTTAAAAAGCCTTTTAAAA

Sequence 297

CCGCGGTGGCGGCCGCCGCGGCAGGTACGGCCACACTGGGACTGAGATACGGCCCAGACT
CCTACGGGAGGCAGCAGTAAGGNNTTTCCACAATGAGCGAAAGCTTGATGGAGCGACAC
AGCGTGCAGGATGAAGTTCTTCGGAATGTAACTGCTGTTATAAGGGAAAAAAAAAAAAA
AATAANNAAAAAAAAANGGTACCT

Sequence 298

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGNCAGGTACGCGGNGAAATGCA
AAAAATCAAATCAATTTAATAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGG
GGTTGTATTTAAAGATATTTCACTACTTTAGCAAATGGAGAAGTGCTAAATTACACAAT
TAATCAAATGGCTGAGTTAGCTAAAGATGCANATGTTATTATAGGTCCAGACGCAAGAGG
TTTCTTGTTTGGGACACCTACTGCAGCTNTTTTAAAAAACCTTTTATTATGGTAAGAAA
ACCTAAAAATTACNAGGAGACGTTATTAGTTTNGAGTATGATTTAGAATATGGTAAATC
AACTCTAGAAATCCAACTAATATTTGAAAAAG

Sequence 299

CCGGGCAGGTACGGCCACACTGGGACTGAGATACGGCCCAGACTCCTACGGGAGGCAGCA
GTAAGGAATTTTCCACAATGAGCGAAAGCTTGATGGAGCGACACAGCGTGCAGGATGAAG
TTCTTCGGAATGTAACTGCTGTTATAAGGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
GTACCT

Sequence 300

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTCTAGGACAATCAGGAAG
TAATCTTAAAAAATAATTGAAGATGTTAAAAATACGTTAAAAATAAAAACTTGTTTT
AAACATAGATGCAGTAGAAATTGAAAAACAGATTTAGATGCAAAATTATTAGCTGAATC
AATTGCAATTAAATTAGAAAACCGTGATCATACCGTATGGCACAAAAATTTGCAATTCCG
TTTAGCACAAAAGCCGGAGCTAAAGGTATTAATACTAAAGTTAGTGGTCGTTTAAATGG
TGTTGATATGGCTAGATCAGAAGGATATTCTGAAGGTGAAATGAAATTACACACACTTAG
ACAAGATGTTAGTTATGCAACAGCAACAGCAAGAACAACCTTATGGAGCACTTGGAGTTAA
AGTTTGAGTTTCATTAGGCGAAGTATT

Sequence 301

CCGGCCAGGTACGCGGGGAAATGCAAAAAAATCAAATCANGNTAATAGAATACATCAGAG
ATGTTAAAGATTTCCCAATTGAAGGGATTGNATTTAAAGATATTTCACTACTTTAGCAA
ATGGAGAAGTGCTAAATNACACAATTAATCAAATGGCTGAGTTAGCTAAAGATGCAGATG
TTATTATAGGTCCAGACGCAAGAGGTTTCTGTTTGGGACACCTACTGCAGCTTTTTTAA
AAAAACCTTTTATTATGGTAAGAAAACCTAAAAAATTACCAGGANACGTTATTAGTTNG
AGTATGATTTACAATATGGTAAATCAACTCTAGAAATCCAACTAATATGTTGAAAAAG
GCCAAAAAGTAGCAATTATTGATGATGTTTGTAGCTACTGGCGGAACAATGAAAGCGATTA
TTAACTTAATCGAATCTCAAGGTGCTGNTGTTTATAAGNAATCTTTTACTTGAATTAG
GATTTTAAACGGNATTNAAAAACTTAAAAAATATGACCGTAGCTCATTAAATAAAAAG
TTTAGTACCTCGGCCCGCTCTAG

Sequence 302

AGGTACTTTGATATCTNCGCCCTCTCGTGTGTTCTTGTGGNGNTAACCAGAGGCAAGAT
GCCCCAGGAACTTCATGTGTATGTCTACCAGGATTTAGATGATCTCTAATAATGGAGGA
CCTGCTATTATTTGTAAAAAGTGCCAGAAAACATGAAAGGTGTTACAGAAGATGGCTGG
AACTGCATTTCTTGCCCTAGTGACTTAACTGCCGAAGGAAAAATGTCACTGTCCATTGGC
CATATTTTAGTGAAAGAGACATTNATGGAACATTGNTGNCTCAAGCAACTNGNGAGCTC

TABLE 1

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TGNGATGGAAATGAAAACCTCTTTATGGTAGTAAATGCTTTAGGAGACAGGNGCGTNCGA
TGTGAGCCAACATTTGNTAATACCAGCAGGTCCTGTGCATGTTNCGAACCTAACATTTTA
ACAGGGGGATTATGTTTCAGNAGCACAGGGAATTTTTCCTTGACGTANAATTTACCTG
CACGTTATGGAGAAGTTTGGCAT

Sequence 303

CCGGGCAGGTACGCGGGGAAATGCAAAAAATCAAATCAATTTAATAGAATACATCAGAG
ATGTTAAAGATTTCCCAATTGAAGGGATTGATTTAAAGATATTTCACTACTTTTAGCAA
ATGGAGAAGTGCTAAATTACACAATTAATCAAATGGCTGAGTTAGCTAAAGATGCAGATG
TTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTGGGACACCTACTGCAGCTTTTTTAA
AAAAACCTTTTATTATGGTAAGAAAACCTAAAAAATTACCAGGAGACGTTATTAGTTTTG
AGTATGATTTAGAATATGGTAAATCAACTCTAGAAATCCAACTAATATGTTGAAAAAG
GCCAAAAAGTAGCAATTATTGATGATGTTTTAGCTACTGGCGGAACAATGAAAGCGATTA
TTAAGTAAATCGAATCTCAAGGTGCTGTTGTTTATAAAGTAATCTTTTACTTGAATTAG
GATTTTTAAACGGAATTGAAAACTTAAAAAATATGACGTTAGCTCATTAAATTAAGTTT
AGTACCTCGGCCGCTCTA

Sequence 304

GCGGTGGCGGCCGAGGTACCTTNTCCGAATGCACCTTNAAGCGGGTATTAGCCTATACA
GGCTGTTTTAGTCGAATGCAGACCATCAAGGAAATTCNNGAATATCTATCTCAAAGACTG
CGCATTAAAGAGGAAGATATGCGCCTGNGGCTANTCCANAAGTGGAGAANTACCTTACTC
TTTCTGGGNTGATGAGGAATCATAAATCTGGAATATTTNGAAAATCCAGGATGAACAACA
C

Sequence 305

GCNNGCGCGGGGAAATGCAAAAAATCAAATCAATTTAATAGAATACATCAGAGATGTTA
AAGATTTCCCAATTGNNGGGATTGATTTAAAGATATTTCACTACTTTAGCAAATGGAG
AAGTGCTAAATTACACAATTAATCAAATGGCTGAGTTNAGCTAAAGATGCAGATGTTATT
ATAGTCCAGACGCAANGAGGTTTCTTGTTGGGACACCTACTGCAGCTTTTTTAAAAAA
ACCTTTTATTATGGTAAGAAAACCTAAAAAATTACCAGGAGACGTTATTAGTTTTGAGTA
TGATTTAGAATATGGTAAATCAACTCTAGAAATCCAACTAATATGTTGAAAAAAGGCCA
AAAAGTAGCAATTATTGATGATGTTTTAAGCTACTGGCGGAACAATGAAAGCCGATTATT
AACTTAATCGAATCTCAAGGNGCTGGTGNTCATAAAGTAATCTTTTTTACTTGGAATTAG
GGATTTTTNAACCGGAAATTGGAAAAA

Sequence 306

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACGCGGGGCAATTA
TGAAATTATTGCAGAAAGAAGATTCCTCTCACCTGATGAATAAGTGTTATAGGTNAAG
GCTACAAAATACTAATTTGTTATTATTTTAATAATAATTTTGTGTTGCTGAGAAAGTG
GATTTACCACTTTTTTATTTTTAATCCAAGGAGGAAAAATTATTTCCAAACCAATCCT
AAAAATTTTTCACGTTCTAAACCAGTTCAAGAACATTGAGTAAACAGAAATATTCCATTT
GTCAAAGTTTTTCTTATCGGCTCAGATAATGAAAAAATTGGGATAATTGAAACAAGAGAA
GCTATTGAAATGGCAAAAGAACAAAA

Sequence 307

CGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGCAGCAAGCGGACGTGAGC
GATAATGGCGGATATGGAGGATCTCTTCGGGAGCGACGCCGACNGCGAAGCTGAGCGTAA
AGATTCTGATTCTGGATCTGACTCAGATTCTGATCAAGAGAATGCTGCCTCTGGCAGTAA
TGCCTCTGGAAGTGAAAGTGATCAGGATGAAAGAGGTGATTCAGGACAACCAAGTAATAA
GGAAGTGTGTTGGAGATGACAGTGAGGACGAGGGAGCTTCACATCATAGTGGTAGTGATAA
TCACTCTGAAAGATCAGACAATAGATCAGAAGCTTCTGAGCGTTCTGACCATGAGGACAA
TGACCCCTCAGATGTAGATCAGCACAGTGGATCAGAAGCCCCTA

Sequence 308

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAATGTTATTAATGTGACTGACA
AGTAATTAGAAAACCTGGAAATTAAATTTTACAAACATTTTTAAAATCGCTNCAATTAATAA
AAATTCAAGATGGTTACATTATGAATATGAATGAAATGTCATTAGCGACTTCGTTAAATG

TABLE 1
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TATATGTAATTCTATATTTTCCCCAAAACCCACATTTTATGAAGAATATTTATTTATTTA
TTTATTTTTGTTTTTTGAGATGGAGTCTCGCTCTGTTGCCAGACTGGAGTGCAATGGTGC
GATCTCCGCTCACTGCAACCTCCACCTCCTGGGTTCAAACGATTCTCCTGCCTCAGCCTC
CCGAGNAGCTGGGACTACAGGCACCGNCACCACGCCCGGCTAATT

Sequence 309

CCGCGGTGGCGGCCGCCGGGCGAGGTAAGTACTGACCCTCCTTGATGGTTTACTTTGCAAGCTA
TGGTGACCTCCGCAAGTTGTGTCTGGGCCCATCCAGGGCTCTGACTAATTGTATTCAAAT
CAAGGCAGGAGCGGGCCAGCTGGCGTTGACTTAACCAAGCCATTTTATAAGCCTCCCGAT
CATTTTTAAGCCACTCTAAGTCGTGTAGTAGGATCTGGTCAGAGTTATGTATACTCTGAT
GGGCATGTGCTGTGTCTGCTAAAATGTCCAGAAGTTCTGAAACACTTTTAGATCTTCCAG
AATTTCTTGAGGAAGTCTGCCTAAGTAAGTATGACATCAAGTTCATCACCGGAGGAAT
CAAAAGAATTTCCATTTTCTATTTCTCTACAGAAAAGAAAAGGATCTTCCTTTAAGATGG
AAATATTATTTCTCTC

Sequence 310

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCACTTGAATTATCTA
TTGAAAGAACTACTACATCGAGTTTTTGTCTTTTGCCATTTCAATAGCTTCTNTTGGNN
NAATTATCCCAATTTTTTCAATTATCTGAGCCGATAAGAAAAACTTTGACAAATGGAATAT
TTCTGTTTACTCAATGTTCTTGAAGTGGTTTAGAACGTGAAAAATTTTAGGATTTGGTT
TGGAATAATTTTTCTCCTTGGAATAAAAAATAAAAAAGTGGTAAATCCACTTTCTCAG
CAAAACAAAAATTATTATTAATAATAACAAATTAGTATTTTGTAGCCTTTACCTATG
AACACTTATTCATCAGGTGAGAGTGAATCTTCTTCTGCAATAATTTCTAATTGCCCGN
GTACCTGCCCGGGCGGC

Sequence 311

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGNCAAGGTACCTGACTGTGGC
TCANATCTGCGTCGCAGCAGCGAGAGAAGAAATCACTCCATATCCGATGAGAGGAAGGT
GGCACAGANATGGTGTCTACAATTAGAGACATTTCTGACTCCACCTTAGCCTAAGCAAAC
TTTATATACTGAGTAACATTTGAAGGTTGTCTTTAATGGTGGGGGGTGNTTTTCTTT
TTAAACTACAGT

Sequence 312

CCAAAANGGNCCTGGGGCGTGGTCACGGCCNAGGTACAAAATTATGACTGTTTTAGCTC
CAGGAACAGATTTAAAAAGTAATTGAAGACGTTTTAAATCTGTTTTGATGCTAAGAACA
TCGAAAAAATTGAAAACTTGAAAGAACAGAGTTAGCATACGAAATTAANNAGCACAAA
CAAGGAATTTTTGTTTTAGCTAACTTAAATCTGAGGAAAGTTAATCGAAGAATTTGTC
AGAAGAGTAAATATTCTCAAAAAACAAGTTTTAAGATTTTTAGTTATTAATCTAGATTCT
GAAAGAGGAATGCACAAACTTTAGACCTAGAAAAAATGATAAACACAAATTTTCTCT
TCTAAAAAACCA

Sequence 313

AATNGGGCCTNGCGTGGTCACGCCCAGGTACNAAATTATGACTGTTTTAGCTCCAGGAAC
AGATTAAAAGTATTGAGCNTTTTAACTNTTTTATCTAAGACATCGAAAATTGAAAAC
TGAAAGACAGAGTTAGCATACNAATTTAAANGCACACAGGATTTTTGTTTTACTAACT
TAAATCTGGGGAAGTTAATCNAAGATTTGTCAGAAGAGTAAATATTCTCAAAAAACAAG
TTTTAAGATTTTTAGTTATTAACTAGATTCTGAAAGAGGATTGCNCAAACTTTCAGAC
CTAGAAAAATTGATAAACACAAATTTTCTNTTTTAAAAA

Sequence 314

NGGGCCTNGGNGTGGNNACGANCCAGGTACTTTTACCAAAGAATCTACTAGAACTCTCTG
CTATTTCAAAACAAAGAGCTCATACTTGTTGGAGTAGGGAAAAAATTAGAAAATTGACCAA
AAGATAGATTCAATCAACTACAAAGTCAATTCAGATGCTGNTAACATCGAAACTCTTG
AAAAAGAACTATTANAATCTGGAGTTGAACTTTAATGGATCATATACCTGNTTGTCTGA
TCAAGCGGATTGNTCAGCTTAATATTAAGAAAGATGGNATCTATTTAGATCTTACTTTAG
GACGNGGNGNCATTGAGNCAATTTTAAAAAACTTACTA

Sequence 315

TABLE 1

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CCCTTCGAGCGGCCCGCCGCGGCGAGGTACTTGTCATAATTTGTGAATATATTAACAAAT
TTTTCTTTGAGTATTCATTTACTAACTCATAAGCTGAAAAGCTTTGAGCTTGATTCATT
CTCATATCCAAACGAGCTTGTTTGTTGTATGAAAATCCTCTATTGGCTTGATCTAACTGA
GGTGAAGATACTCCTAAATCAAGTAATACACCATCTACTTTGTTGATTTGAAGTTTTTTT
AGTTCTTGATCAAAATCTTTAAATCAGATCAAAATAAATTCAATATTTGAAGAAATTTT
AAGAGTTTTCTTTGTTGTTCAATTGCTTGTTGTCTTTATCAAAGACTA

Sequence 316

CCCTTAGCGTGGTCGCGGCCGAGGTACAGGAAGTCCAAAGGCAACAGAAATCTTTCTC
CCTATGTCCCAGCCTACCCCACTTTACCGAGGCCAACAGCCGCTCAGAAACCAGATTC
AGGAGCTAACATGCCCCAGGTCTCACGAGGATCAGAGACTCCAGAGGCCAGGGAAGGAGA
TCAAGGTAGTCAAGCGGGGGTCTGCTCAGATCTGGTTGTGCTCGAGCTATGCAAATGCCT
CTCATGGAGATGTGAGGACCTATCTATTATGATGACCAGGGCCACATCCGGAGGGGGCAA
CAGACTTTCATCTATCAGCCCTTTTCAACCACTGATCTACTAACTGGAAACACTCTGAA

Sequence 317

NGGGCCTTGNGAGCGGCCCGCCGCGGCGAGGTACGCGGGGGTTTAAAAAATATTTAAAAA
ATGGAGGAATTATGAACTTAAAAAGCAAATTAAGAAGCTTTTAGGTGCTACTGCACCTG
TGTTGCCAGTAGCATTTTTGCTTCTTGCCAAACAAGATTTGNNNAAGTAAATGACCATA
AATTAGTGATTGCTCACACTTTAATAGTAGAGAAGGAAGGTTTTAGCATTAGATCAAA
TTGTTAAGCTTTGAAATGAAAGTAAAAAGTTAAAAACAAAGAAGAAGGATTTTATCCAA
TAACACTAAATCGACAATTTGCGCAAATTTATGCAGAA

Sequence 318

CAGGTACTTTAGCTCCAAAATCAGTTTGATGAGATACAGTTGCCCTATATGAGAATGCA
CAGGATTCCTCATTGGTGAGTTCAACCATACATTTGGGTAACTCCTGAAGACATCTGCA
AATTGTGAGTTAGTTGGTGGGGTCCATTAACTTTGCATATGTTATTCTTTCTACTGAAG
TGTGTGAGGCCACAACGTGCCATTATGCATATCANAAACAGAAATTTGTTGAGGATAAT
TTTGATATTGAGCAGNGGCTGNGAACTGGATTTGAATTACCGGGATACATGCATGCTT
CTTGTT

Sequence 319

CCCTTAGCGTGGTCGCGGCCGAGGTACGCGGGGCAATACGTAGAGATAATAACAGTTTTT
TAAAAAATTAATATTTGTTATTGAATGTATTTTTGAGTATTGCATCTTTTCTATACT
AATAAGGAGGTGTAATTTGAACGCTTTTAGAAAGAAAAAAGAAGAATTAGTGCAAGAAAT
TAAAGATTTGATTAATCTTCTTCTTCATTAGTTATAGCTGAATATCGTGGAATTAACAGT
TGCTGAAATTGAACTCTTAGAAATGAAGCTTAAAGAAGCAGGTGTTTTGTAAAAGTTT
ATAAAAAAGACTATTTAAATAGCATCTAAAGAAGCAGGTTTCGAGATTTAGAACAAT
CACTAGTTGGTCCAAATTTTTTGTCTTTGGTTCTACAGATGCANTAGCTCCAGCTAAAA
TTATTTCAAATTCGCTAAAAACAAATCCAGTAAGTTGTATTAAGGCGGTATTTTTTG
A

Sequence 320

CCCTTAGCGTGGTCGCGGCCGAGGTACCACGGAATTTTAAAAATAGACTNTAAAAAACCN
TCAATTGCANAATAATTTGNTTGATTTACTTCAAATTGAAGGAAGCTTTTAGGTTTT
GTTGNAATAGTAAANGAAATTCGATNAGTAATCAATCAAAGAATAATGAATNGACAAAT
TCTGACATAAAAAACAGCCAAAGAATATCATTTAGAACAATAANAGCGCTTAAAAAACT
TCAAATTAACAAATATAATTTATAATTTATGGCACTATGAAAAAAGNGACTTTATTTA
ATATCAACTTTTANCATTTTCAACAATTTTATTAGCTATTNCTNGTGGTAAAAATCAAAT
ACTCCTGTAGGCACACAACCANTTGATANTCCAAGCCTGGAGGATTCATCAAGNGAATCA
ANAGTTCTGGATTTAAATTAATAGAAAAAAG

Sequence 321

CCCTTAGCGTGGTCGCGGCCGAGGTACAATTTCTAATTGATCCTGTTACATTCAAGTGAA
ATGGCATTGCATATTTATATGTTGCTTACAGCTTATTGATTTAGGTAAGTATTGTGCTT
CCTTCACTATCTGACCTGAAAAGCACTCTCTTCTCTATGCACTCTTATATTCTGCCTTC

TABLE 1

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TGCCTGGAGTTTGAAATACATGTCTCTTTAGTTTCTTTGCACATGCTACATTGTGCTTT
AGACCGGAGATAATACAGTGACTTTACCTCACAAATCATATTCTGTCAACACAAATCTAT
GAATTTAGTTTATTTAAAATCAGAACAATTTCTACAAAATTTTCTGGAAAATAGACTC
CTAACAGACCTACCAGAATCATGCTTAAAGGGCTCCCTTGACACTTATTCTATACTGAAG
GATAAATTTTAAAAAAT

Sequence 322

CCCTTTCGAGCGGCCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTT
ATATAAATTTATTTATTAACCTTTTCAATACCTTTTGAAGGTCAAAGTTTGTAAAGATGAA
TTAGGTTCTTTGAAAGTAAATCCCACAAGTGAAGTGCAGCTAGAATAATAAATACTG
CATATGCAGCTTCTGTTGATGCTGATTTAATTCCTGCAACTAGAACAGTTGCTATAGAAT
AAAATGCATAACCTAATCCTCANATAAGTCCAAATTGATATCCAACTTTTTTAGGATTTG
ATCCTTTGATTTCGGGAGGAAGATTTAAGATAACACCTTGAATTCCTCAAAGCATTACTC
CCATTAAAAATCCTAAAAATATAGAATAATCAAGTTCATTACCTA

Sequence 323

GCGGTGGCGGCCCGCCCGGGCAGGTACAAGGTAAAGCAAGAGCTGGCTCTCTACGTTCCACC
AATTTTTGTAGGTGGTGGTTCGTGCATTTGGGCCTACAAATAATAAAAATTACAAAATTAA
ATTAACAAAAAAGTTTCGCAAATTAGCTTTTGCCTCAGCTTTTAAGTCAACTTGCTCAAA
ATAATCAAGTACCT

Sequence 324

NNCTTAGCGTGGTCGCGGCCGAGGTACGCGGGGAAATGCAAAAAATCAAATCAATTTAA
TAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATTTT
CACCCTTTTAGCAAATGGAGAAGTGCTAAATTACACAATTANNCAAATGGCTGAGTTAG
CTAAAGATGCAGATGTTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTTGGGACACCTA
CTGNAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAACCTAAAAAATTACCAGGAG
ACGTTATTAGTTTTGAGTATGATTTAG

Sequence 325

CCCTTTCGAGCGGCCCGCCCGGGCAGGTACTTGTCCATAATTTGTGAATATATTAATACTAAT
TTTTCTTTGAGTATTCATTTACTAAGCTGAAAAGCTTTGAGCTTGATTCATT
CTCATATCCAAACGAGCTTGTTTGTTGTATGAAAATCCTCTATTGGCTTGATCTAACTGA
GGTGAAGATACTCCTAAATCAAGTAATACACCATCTACTTTGTTGATTTGAAGTTTTTTT
AGTTCTTGATCAAAATCTTTAAATCAGATCAAATAAATTCAATATTTGAAGAAATTTTT
AAGAGTTTTTCTTTGTTTGTCAATTGCTTGTTGTCTTTATCAAAGACTA

Sequence 326

CCCTTAGCGTGGTCGCGGCCGAGGTACAGGAAGTCCAAAGGCAACAGAAATCTTTCTC
CCTATGTCCCAGCCTACCCCACTTTACCGAGGCCAACAGCCGCTCAGAAACCAGATTC
AGGAGCTAACATGCCCCAGGTCTCACGAGGATCAGAGACTCCAGAGGCCAGGGAAGGAGA
TCAAGGTAGTCAAGCGGGGGTCTGCTCAGATCTGGTTGTGCTCGAGCTATGCAAATGCCT
CTCATGGAGATGTGAGGACCTATCTATTATGATGACCAGGGCCACATCCGGAGGGGGCAA
CAGACTTTCTATCAGCCCTTTTCAACCACTGATCTACTAACTGGAAACACTCTGAA

Sequence 327

NGGGCCTTGNGAGCGGCCCGCCCGGGCAGGTACGCGGGGGTTTAAAAAATATTTAAAAA
ATGGAGGAATTATGAACTTAAAAAGCAAATTAAGAAGCTTTTGGTGCTACTGCATTG
TGTTGCCAGTAGCATTTTTTGTCTTCTGCCAAACAAGATTTGNNNAAGTAAATGACCATA
AATTAGTGATTGCTCACACTTTTAAATAGTAGAGAAGGAAGGTTTTTAGCATTAGATCAAA
TTGTTAAGCTTTGAAATGAAAGTGAAAAAGTTAAAAACAAAGAAGAAGGATTTTATCCAA
TAACACTAAATCGACAATTTGCGCAAACCTTATGCAGAA

Sequence 328

CAGGTACTTTAGCTCCAAAATCAGTTTGATGAGATACAGTTGCCCTATATGAGAATGCA
CAGGATTCCTCATTGGTGAGTTCAACCATACATTTGGGTAACCTGAAGACATCTGCA
AATTGTGAGTTAGTTGGTGGGGTCCATTAAACATTTGCATATGTTATTCTTTCTACTGAAG

TABLE 1
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TGTGTGAGGCCACAACGTGCCATTATGCATATCANAAACAGAAATTTGTTGAGGATAAT
TTTGATATTACGAGNGGCTGNGAACTGGATTTGAATTACCGGATACATGCATGCTT
CTTGGTT

Sequence 329

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAACTTTAATTAATGAGC
TAACGTCATATTTTTAAGTTTTTCAATTCGTTTAAAAATCCTAATTCAGTAAAAAGA
TTACTTTATGAACAACAGCACCTTGAGATTGATTAAGTTAATAATCGCTTTCATTGTTT
CGCCAGTAGCTAAAACATCATCAATAATTGCTACTTTTTGGCCTTTTTTCAACATATTAG
TTTGGATTTCTAGAGTTGATTTACCATATTCTAAATCATACTCAAACTAATAACGTCTC
CTGGTAATTTTTAGGTTTTCTTACCATAATAAAAAGGGTTTTTTAAAAAGCTTGCAG
TTAGGGTGGTCCCAAACAA

Sequence 330

CCGCGGTGGCGGCCGCCCGGGCAGGTACACCTCTGATTCTCACTAGTTGAATGCAAGAAC
TTGAAAGGTTCAAGTAAGTGTTTTGAAAAATTTGACTTTCCAACTTTGCCACTTGCT
ATCTGAAACTCAGGAATCAAAAAATACCGACAGGCACTGTTACTTTCAAAATCTTTCTA
TAAGTTGAGAATGGGACAGATTTGCAGAGCAAGGGAACTTGAACAGTTACTTCTAGTGG
TAGGAAATGAGGTGGCTAGGATATTACCCAGCTGGTGGGTGACTTGGGCAGTGTGTTCTT
GCTTTCAGTGGTTAGCCTTTAGCAAATCTGCTTTAGAGTGAGAGTAGAGGGCAGGCTGTT
GTATTACAGTGCTCTTGTTTTGTAAAAATTAATTCACTCTACTGNTATTTTGTCTCCTT
GGGTAAAGNGNTATTTAATTTTTCT

Sequence 331

ATTATTGCNGAAAGAAGATTCACCTCTCACCTGNTGAATAACGTGTTATAGGTAAAGGCT
ACAAAATACTAATTTGTTATTATTTTTAATAATAATTTTTGTTTTGCTGANAAAGTGGAT
TTACCACTTTTTTATTTTTAATCCAAGGAGGAAAAATTTTCCAACCAATCCTAAAA
ATTTTTACGTTCTAAACCAGTTCAAGAACATTGAGTAAACAGAAATATTCCATTTGTCA
AAGTTTTCTTATCGGCTCAGATAATGAAAAATNGGGGATA

Sequence 332

CCGCGGTGGCGGCCGCCCGGCCAAGGTACGCGGGGGCAGAAGAGGAAGATTTCTGAAGAG
TGCAGCTGCCTGAACCGAGCCCTGCCGAACAGCTGAGAATTGCACTGCAACCATGAGGTA
AATTTTTCCCTTCGTATTGCGTAGTGCTGTTGAGTCATCTTGCCAATGCAATCCTGA
GAAGCTATGTTCCCAAAGAGGGCCAGCTCCATTTAGTGTTGTTTATAGCCTTACTATGC
CTCTACCTCTGGGGGTTGTAAATCTGTTNTACCAATGGGNGGGTTTGTTNCCCTTCCTG
AANCAAATTTTTCTGCTTNNACACTTGGGCAAACCNNTTCTAAATTTATCCTCCCANA
ACTTTGCNCCNCCNTTGGGGGGAGGTTTGGGGTTTTCAACTCCNGAANAAAAAGAGGGGC
CCCCACCNNAGGGNNTNNTTTNTTTTAAATTNGGGCCNNGGGGNTTNNANTTAAAAAA
NNGGGNTTTTNGGGGGACNNTTTTTNTTTNACCCCCCCCCCTTTTTT

Sequence 333

GGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAACGTTGACCTTCCTTG
CCCAAGAATGAATGATTAATAAGTTGAAAAGCTGTGTTTGTAGATCGTTCAGGCCTTCGT
CTGCAACTATCAGGAAATATGGGTAACCTCTTCCAAGAACTTCCCCACTCTTTTGATA
AGCATCTCGAAAATGTTGTTTGAACATCAATGGTGGTATTTTCTGAAGATGAAGAATTAA
AGCAGTTCTCAAAGAAAGAAGTTGAGGGAAGTTGAAATACGCATACTCGGCATCCTTGAA
GAAAACATATGGTGAATTGTCCTCCTTTGCTAATAAGATCCACAAGATAGCCGTTCAACCA
GATAGAAAAAATGGGAGGTNCCTGCCCCAGGCTTTAAANTGANTNNCNCCNCAGCATCCC
CTTGGGGATNNGGTAANNNNCCNCCCCCNANCAAAAAAAAAAATTTTCCCNCCNACC
NAATTNTGAAAAACCNNGNGGGGGTTTAAAAATTTGNGNTCNNAATTTNAAAAAAAAAA
AN

Sequence 334

CCGGGCAGGTACTAGGAGATATTGATTCTAGTCAATTAGGCATTGTAGACTGTCATGACC
ACTTAATAAAAAATTATGGACCTGAAGCTCACGAGCATCCAGATTTTATTATGATGTCAA
AAGATGCTGCAATTAAGAAATGAATGAATATGTAGCAAAAGGAGGAAAAACTGTTGTTA

TABLE 1
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CAATGGACCCTCCTAACGTTGGGCGTGATGTTTATCAAATGTTAGATATTGCAAAGAAAT
TAGAAGGAAAAGCTAACATTATTATGGCAACTGGTTTTATCAAAGCTGCATTTTATGACA
AAGGTGCTTCTTGAAGTTGCTTTGGCTCCAACAGATAAAATTGNAAAAATGGTTGTAGCTG
AAATCGAAGAAGGAATGGATGAATATACTACAGCGGACCAGTTGTAAAAAGATCTAAAT
CCAAAGCCGGAATTATTAAGC

Sequence 335

CTCCCCGCGGTGGCGGCCGAGGTACCGCGGGGAAATGCAAAAAATCAANNCAGTNNANT
CNAATACATCACAGATGTTNAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATATTTT
ACCACTTTTAGCAAATGGGAGANGTGCTAAATTACACAATTAATCAAATGGCTGAGTTAG
CTAAAGATGCAGATGTTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTGGGACACCTA
CTGCAGCTTTTTAAAAAACCTTTTATTATGGTAAGAAAACCTAAAAATTACCAGGAG
ACGTTNTTAGTTTTGAGTATGATTTAGAATATGGTAAATCAACTCTAGAAATCCAACTA
ATATGTTGAAAAAAGGC

Sequence 336

CTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAAATGCAA
AAAAATCAAATCAATTTAATAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGGG
ATTGTATTTAAAGATATTTACCACTTTTAGCAAATGGAGAAGTGCTAAATTACACAATT
AATCAAATGGCTGAGTTAGCTAAAGATGCAGATGTTATTATAGGTCCAGACGCAAGAGGT
TTCTTGTTGGGACACCTACTGCAGCTTTTTAAAAAACCTTTTATTATGGTAAGAAAA
CCTAAAAAATTACCAGGAGACCGTTATTTAGGTTTTNGGGTNNAGATTTAAATTGNGG
AANCCCCNNTNTAGAAATCCAACTAATTNTGTTGNNAAGGGCCAAAAAGTNCCAA
TTATTGGTGATGTTTAGCTACTGGCGGAACAATGAAAGCGATTATTAATT

Sequence 337

CCGCGGTGGCGGCCGAGGTACCAATAATAGCAACCCTGTGATTTGTCCAAGTGCCCGGGA
GTGGAGGCCATCCTGACAACAGCTCTATGATTTTCTATGCCAATGACACAGGAGCCCAAC
AGTTTGAAAAGTGGTGGGATAAGTCCAGGACAGTCCCCTTTTATCTTGAGGGCTCCTCC
TCCCCTGCTCAATTTCAAGTCTCCTTCATTTTTTCAAATTTAATATCCTAGGCACAG
TGTCTGCTCTTTATTTGATTTTCTTGTACCTTTAAGGCTGTTGCTTGGGATTTTATT
TGGAATTTTCAATGGTTTATACCAACAGAATTTTTGTACCTGCCCG

Sequence 338

CCGGGCAGGTACCTGGAAGACTTCTCCACCTCGGGGGCCTGGCTGCCTCACAGGTATGAA
GACAACCACCATAACTGCTACTCTTACGCACTCACGTTTATTAACTGCGTTCTGATGGCA
GAAGGTAGACAGCAACTGGACAAGGGTGAATTTACGGAGAAGTACCT

Sequence 339

ATAAACTGCGGGATCTCAATGGCTTCTATGATCGTATTGAGGCAGTAGTTCCACACTCT
GCCCGGTGCCAGCATGAAAGAGAACAGGGAGAGTCAGCCTTTACAGTCCTTGTCAAATC
CCAATTACTCTGGTTGCAGATCACTTGAAGCCTGCCTTGTTTCTCTACAAAGCTCTGCC
CGAGAGTCCAGCCCCGCGTACCTGCCCG

Sequence 340

GCGAATTGGAGCTCCCCGCGGNGGCGGCCGAGGTACAAGATAGTCATNTCAGTAAAAGGT
CTATTATCTAACTTGCCAACTTGTTTANNGAGAGCCCTAAGGAACTAAAACTGCCATAA
TGCCNTGCACAGCTTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCTCCCTCCAG
TTCTCAGCAGGCTGGCTGAAGGCCAGGAGGGAAGGAAATATAAGAACCAACAATAAA
AATAGCAATAGCAATAAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCAC
CTNTCCCGGATCAGGCTTCCATTGCTCACGATGCTCACGCTGGGCAG

Sequence 341

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTCTAGGACAA
TCAGGAAGTAATCTTAAAAAATAATTGAAGATGTTAAAAATACGTTAAAAATAAAAA
CTTGTTTTAAACATAGATGCAGTAGAAATTGAAAAACCAGATTTAGATGCAAAATTATTA
GCTGAATCAATTGCAATTAATTAAGAAAACCGTGGATCATACCGTATGGCACAAAAATTT
GCAATTCGTTTAGCACAAAAAGCCGGAGCTAAAGGTATTAAACTAAAGTTAGCGGTCGT

TABLE 1
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TTAAATGGTGTTGATATGGCTAGATCAGAAGGATATTCTGAAGGTGAAATGAAATTACAC
ACACTTAGACAAGATGTTAGTTATGCAACAGCAACAGCAAGAACAATTATGGAGCACTT
GGAGTTAAAGTTTGAGTTTCATTAGGCGAAAAGTATTTGCAAAGCAAATCAAGCATATAA
TGAAGAAGAACCAACNCACAAAAAGGGCCAAAAAGAGCAGCAAGAGTTAAAAAGAA

Sequence 342

CCGGGCAGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTCCAGGTGTTACACA
GCTGCTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCC
TGTGCCCAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTG
GAGGGGCAGTTCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTG
ACTGCATTACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACC
TTGCAGTGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGA

Sequence 343

CCGGGCAGGTACCGCTGTGTCCGGGTGGGTGGTCATGAATGCCGTGCTCCAGGTGTTACAC
AGCTGCTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGC
CTGTGCCCAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCT
GGAGGGGCAGTTCGGGAGGAGTTTGTGTCCATCGATCACCTNTTGCCAGATGACAAGGN
GACTGCATTACCACTCAGTATATGTGAGGGAGGGGATGTGCCTCTGGCCAC

Sequence 344

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAACTTTAATTAATGA
GCTAACGTCATATTTTTTAAGTTTTTCAATTCGGTTAAAAATCCTAATTCAAGTAAAAA
GATTACTTTATGAACAACAGCACCTTGAGATTGATTAAGTTAATAATCGCTTTTCATTGT
TCCGCCAGTAGCTAAAACATCATCAATAATTGCTACTTTTTGGCCTTTTTCAACATAAT
TAAGTTTGGATTTCTAGAGNTTGATTTACCATATTTNTAAATCATTCCTCAAACTAATA
ACCGCNCCTGGGAAATTTTTTAGGGTTTTNTTACCCCTAAATAAAAAAGGNTTNTT
TT

Sequence 345

CCGCGGTGGCGGCCGCCCGGGCACGGTACCACTTGAATTATCTATTGAAAGAACTACTAC
ATCGAGTTTTTTGTTCTTTTGCCATTTCAATAGCTTCTCTTGTTTCAATTATCCCAATTTT
TTCAATTATCTAGCCGATAAGAAAACTTTGACAAATGGAATATTTCTGTTTACTCAATG
TTCTTGAAGTGGTTAGAACGTGAAAAATTTTTAGGATTTGGTTTGAAATAATTTTTCC
TCCTTGATTAAAAATAAAAAAGTGGTAAATCCACTTTCTCAGCAAAACAAAAATTATT
ATTAAAAATAATAACAAATTAGTATTTTGTAGCCTTTACCTATGAACACTTATTCATCAG
GTGAGAGTGAATCTTCTTTCTGCAATAATTTCTAATTGCCCCGCGTCCTTGGCCGCTCTA
GAACTAGGTGGG

Sequence 346

CACTACTATAGGGNGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTAGGA
GATATTGATCCTAGTCAATTAGGCATTGTAGACTGTCATGACCACTTAATAAAAAATTAT
GGACCTGAAGCTCACGAGCATCCAGATTTTATTATGATGTCAAAGATGCTGCAATTTAA
GAAATGAATGAATATGTAGCAAAAGGAGGAAAACTGTTGTTACAATGGACCCTCCTAAC
GTTGGGCGTGATGTTTATCAAATGTTAGATATTGCAAAGAAATTAGAAGGAAAAGCTAAC
ATTATTATGGCAACTGGTTTTATAAAGCTGCATTTTATGACAAAGGTGCTTCTTGACTT
GCTTTGGCTCCAACAGATAAAATTGTAAAAATGGTTGTAGCTGAAATCGAAGAAGGAATG

Sequence 347

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCGTAGAAGAAGAAGG
AATACCTAAAGAAACAGACATAGAAATCATCCCAGAAATCCCGGAACTCTAGAGCCACT
GTCCCTTCAGATGTGCTGAGGATCTCGGCAGTCTGGAGGACACCACAGGCCAGCTCTC
TATTCTGAACATCATGCCCGTTTCAGTACCT

Sequence 348

TNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAACTTTAATTAATG
AGCTAACGTCATATTTTTTAAGTTTTTCAATTCGGTTAAAAATCCTAATTCAAGTAAAA

TABLE 1
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AGATTACTTTATGAACAACAGCACCTTGAGATTGATTAAAGTTAATAATCGCTTTCATTG
TTCCGCCAGTAGCTAAAACATCATCAATAATTGCTACTTTTTGGCCTTTTTCAACATAT
TAGTTTGGATTTCTAGAGTTGATTTACCATATTCTAAATCATACTCAAACTAATAACGT
CTCCTGGTAATTTTTAGGTTTTCTTACCATAATAAAAGGTTTTTTAAAAAAGCTGCAG
TAGGTGTCCCAAACAAGAAACCTCTTGCCTCTGGACCTATAATAACATCTGCATCTTTAG
CTAACTCAGCCCATTGATTAATTGTGTAATTTAGCACTTCTCCATTGCTAAAAGGTGG

Sequence 349

TCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTAAAACAGGT
GCTCCTGTAAAATAGAAGATCTTGCAGCTACTTCTAGAGATTTAAATTCTAAACGATCA
ATAGCAGCGTATCCTGTTCCGGCTTTAATAATTCCGGCTTTGGATTTAGATCTTTTTACA
ACTGGTCCGCTGTAGTTATATTCATCCATTCCTTCTTCGATTTAGCTACAACCATTTTT
ACAATTTTATCTGTTGGAGCCAAAGCAAGTCAAGAAGCACCTTTGTCATAAAATGCAGCT
TTATGAAAACAGTTGCCATAATAATGTTAGCTTTTCTTCTAATTTCTTTGCAATATCT
AACATTTGATAAACATCACGCCAACGTTAGGGAGGGTCCATTGTAACAACAGTTTTTCC
TCCTTTTGCTACATATTCATTCATTTCTTTAATTGCAGCATCTTTTGACATCATAATAAA
ATCTGG

Sequence 350

TAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATTCTTCACTATCA
CTGTCCTGTAAATTTAGTAGCCTTGGCTGGAAACACTGTAGTCGACATGATCTGATATTG
CTTAATATTTAGAAAGAGACAGTCTATTTTCAATGTTTACTGGAAGCATTGGTCCGA
GAGAAATTAGAAGAAAAGTCTATAGTTTGGGAAGAGCTTGAAAACTATTCAGCATTTCA
GGGTCTATCTGTTTCAGGACTGGGTCTGTTCTGTGGATATTCGGTCCATTATGACCCCT
CCACCTCTGCCAATTCGCCTCCTTGCAAATCCTATACATCTTCTTGGGACTGTAAGTGT
GTAAGGC

Sequence 351

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGCTTGGTGA CTGTA
ATTAACAACAATGTATTTTGAAGTCACTGAGTAAATTTTAAGTGGTTTTTCCAAAAAAG
CACATAAGGTAATGCACCGTTAATTAGCTATATTGAGCCATTCCACAATGTATAGATATT
TCAAAACATGTTACACATGATAAATCCAGTTTTTCTACGTCATTTTTTAAATTATATTT
AATTTTTTTATTTTGAAGTTTTTTCACAGATCTTTTTTTTAGTATTATTACCTTCTGAT
ATATGTGTCATTATTGAAGAACCATACCTTTTAAAGGTATTATTTTGTAAATTAAGGTATG
TCAACAGTAAAAAATAACCAAGTGGCCCAGGCCATNGGGGCTCATGCCTGTAAATNCCAGC
ACTTTTTTCGGAGGCCCG

Sequence 352

CCGCGGTGGCGGCCGAGGTACCTGTGAAGACAGCTACACCTGGTTTCCTCCCTCATGCCT
TGATCCCCAGAAGTGTACCTTCACACGGCTGGAGCACTCCAAGCTGTGAATGTCATCT
TCAACAACCTCAGCCAGAGTGTCAATTTCTGTGAGAGAACAAGATTTGGGGCACTTTC
AAAATTAATGAAAGGTTTACAAATGACCTTTTGAATTCATCTTCTGCTATATACTCCAAA
TATGCAAATGGAATTGAAATTCAACTTAAAAAAGCATATGAAAGAATTCAAGGTTTTGAG
GTCGGTTCAGGTCACCAATTTGAAATGGAAGNCATCGTTGCTGGGTATTGAAAGGTTT
GT

Sequence 353

CCTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTGTTTTATATTCT
TCAATCCTATTGATGAAAACTTAAAGATGAATTAGAAAAATCTTATGTAATTAGACAA
AAACCAAAAAACAAAACTTATTTTAGAAAGACTTGGATAATGATTGATTATAAAAAAA
TGATTGACCATACTTTATTAACCAGAGCTACATCTAAAGATATTTTAAACTTATTT
CACAAGCTAAGAACATGGATTTAGAGGAGTTTGCATTAACCTCTTCTGAGTTAAATTAG
CAAAAGAAAACTTGCAAATACAGATTTAGATATCGTTTCAGTAGTTGGCTTTCCATTAG
GTGCATCAAACACACAAACCAAGGTTTTTGAAGCAAATTAGCAGTTGAACATGGAGCTA
CTGAAATAGATATGGTTATAAATGTGGGTAAATTCAA

TABLE 1

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Sequence 354

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTGTGCATGAAACCACACA
TACGGGCAAAGCAGGAAGAGACTTTGCAGACATAAAAACCAGGTAAGTTTTGAGAGTCA
GGTGATTGCAAGATTTTTTTTCTTTCATTGACACTTAGCTAATTTTGAGCCATATTTTT
AAATGTGTGTCTTTTCAGTTACTTGAAACCTCTTCTCCACCTCCCATCCTTTCCAAACC
TCCTCCAAGCCAATTTTCCAGTTGGTTTAAAAGAAATCATTAGGGTGACCCCCACTCCCA
CTTTCTGGAACCTCAGGCAGAGCTCCTGGGGTTCCTCC

Sequence 355

NNTTTTTTTTTTTTTTTTTTTTGCGTGGAATCCTTCACCTCTTGCTAAAGGAACAGTAA
TGTCATATCCTGTTAATCTTGCAGGAGGCGCTAATAAGAATTCAAATGCTTCTCATTTT
TCTTGTAATAATTTCACTGAACTGAAAATGATTAACAGCTTCGTGAACAACATAAAAGTC
TTCCAGTTTTTTTAAACAGAGTTAATAATTGTATCTGTATCTAAAGGAGAAATTGTTCTTA
AATCAATTAATTCTACAGAGTATTCTCCATTTAATTGTTTTAAAGCAGCTAGTGCTTCGT
GAACTTGTGCTCCATATGTTACTAATGTTAAATCAGAACCTTCTACTAATACATTTGCTT
TACCAATTTCAACTTCATAAATTCCTGCTGGAGCTTCTTGTTTGAATGAACGATAAATTT
TCTTAGGTTCTAAGAAAATAACTGGATCTGGGTCGTTAATAGCTGCGATTAATAATCCTT
TTGTATCATAAGGAGTTGAAGGCATAACAACCTT

Sequence 356

AGGGCGAATTGGAGCTCCCCGCGGTGGGCGGCCGAGGTCTAACTTTAATTAATGAGCTA
ACGTCATATTTTTTAAGTTTTTCAATTCGGTTTAAAAATCCTAATTCAAGTAAAAAGATT
ACTTTATGAACAACAGCACCTTGAGATTGATTAAGTTAATAATCGCTTTCATTGTTCCG
CAGAGCTAAAACATCATCAATAATTGCTACTTTTTGGCCTTTTTTCAACATATTAGTTTG
GATTTCTAGAGTTGATTTACCATATTCTAAATCATACTCAAACTAATAACGTCTCCTGG
TAATTTTTTAGGTTTTCTTACCATAATAAAAGTTTTTTTTAAAAAAGCTGCAGTAGGTGT
CCCAACAAGAAACCTCTTGGCTCTGGACCTATAATAACATCTGCATCTTTAGCTAACTC
AGCCATTTGATTAATTGTGAATTTAGCACTTCTCCATTTGCTAAAAGTGGTGAAATATC
TTTAAATACAATCCCTTCAATTGGGAAATCTTAAACATCTCTGATGTATTCTATTAAAT
GATTTGATTTTTTTTGCATTTCCCCGCGTACCTGCCCCGGCGGC

Sequence 357

GAATGGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGATAGTCATCTCAGTAAAAGGTCT
ATTATCTAACTTGCCAAACTTGTTTACTGAGAGCCCTAAGGAACTAAAAGTCCATAATG
CCGTGCACAGCTTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTCCAGTT
CCTCAGCAGGCCTGGCTGAAGGCCAGGAGGGAAG

Sequence 358

AGGTACANGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTTGCCAAACTTGTTTACT
GAGAGCCCTAAGGAACTAAAAGTCCATAATGCCGTGCACAGCTTGAAAAGCAATTAAGA
GTAAGCAAGATTAGTTTTCTCCCTTCCAGTTCTCAGCAGGCCTGGCTGAAGGCCAG
GAGGGGAAGGGAATATAACGGAACCCAACAATTAANAAATAGGCAAATAGCCAATTA
GTAAGGAATGGNCATCCCATGGGAGGCANCAACCATTAAATTTCTTGGGAACCCACTNTNT
CCCNNGGATTGAGGGCTTCCATTTGCTTACNGATGGCTTCACGTCTGGNGCAGCCCCGG
AACTCTTACTTTGCCAGGAAACCTCACCTCACTTTGCCAGGGTATTTCTNCCCCGGG
TCTTGGAANGAAAATGGGCTTCNTCCACCTGAAAAAGGGTTNGAATCCTTTCTTCCCAT
TACCCAGGCTTTCCNTTTAAAGCCAAAAAGGCAAATTCCTCCTTTTTTGGCTTTTCT

Sequence 359

CTAATTGATCCTGNTCACATTCAGTGAAATGGCATTGCATATTTATATGTTGCTNACAGC
TTATTGATTTAGGTAACATTTGTGTCTTCTTCACTATCTGACCTGAAAAGCACTCTCTT
CTCTATGCACTCTTATATTCTGCCTTTCTGCTGGAGTTTGAAATACATGTCTCTTTAGT
TTCTTTTGCACATGCTACATTGGGCTTTAGACCGGAGATAATACAGTGACTTTACCTCAC
AAATCATATTCTGTCAACACAAATCTATGAATTTAGTTTATTTAAAATCAGAACAAATTC
CTACAAAATTTTTCTGGAAAATAGACTCCTAACAGACCTACCAGAATCATGCTTAAAGTG
CTCCCTTGACACTTATTCTATACTGAAGGATAAATTTTAA

TABLE 1

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Sequence 360

CCGCGGTGGCGGCCGAGGTACAAGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTTG
CCAAACTTGTTTACTGAGAGCCCTAAGGAACTAAAAGTCCATAATGTCGTGCACAGCTT
GAAAAGCAATTAGAGTAAGCAAGATTAGTTTTTCTCCCTTCCAGTTCCTCAGCAGGCCT
GGCTGAAGGCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAATAGCAATAGCAAT
AAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACC

Sequence 361

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTGTTTTATATT
CTTCAAATCCTATTGATGAAAACTTAAAGATGAATTAGAAAAATCTTATGTAATTAGAC
AAAAACCAAAAAACAAAACTTATTTTAGAAAGACTTGGATAATGATTGATTATAAAAA
AATGATTGACCATACTTTATTAACCAGAAAGCTACATCTAAAGATATTTTAAACTTAT
TTCACAAGCTAAAGAACATGGATTTAGAGGAGTTTGCATTAACCTCTTCTGAGTTAAATT
AGCAAAAGAAAACTTGCAATACAGATTTAGATATCGTTTCAGTAGTTGGCTTTCCATT
AGGTGCATCAAACACACAAACCAAGGTTTTTGAAGCAAAATTAGCAGTTGAACNTGGAGC
TACTGAAATAGATNATGGGTATAAATGGTGGGTAAATTTCAA

Sequence 362

CCGCGGTGGCGGCCGCCGCGGCATGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCT
TGGTAGGCCATTACCATACCACTAACTAATGTTCCGCACCCCATTTTTAAGTGAAGCT
GTGAAGCTCCTTTCTATTACTCATCATGCGATAAATACTATATCCGGTATTAGCTATTG
TTCCAATAGTTATCCAGTCTTAAAGGTAGGTTAGGTACCT

Sequence 363

CACTACTATAGGGNTNATTGGAGCTCNCCGCGGTGGCGGCCGTGCTGTTGCTTGGCCGCG
CGCCAGGCTGGCCAGAGGTGCTGTTCCACTGGGGCGTGGCCGTGATGGTGTGCGCCGATC
GACGTTCTGTTTTAATGAAAGGATGGACATGCAACTGACACTCGCACAACTCTTGGCAAT
CATGCCAATGCCCGCTCCAAAGCGGGTATTTTTTGCCTGCGCTAAACGTGGCCATGGC
GGAATTCGGTATCAACACGTGGCGCGCCAGGCCGCGTGGCTGGCCACCATCGGTGTCGA
GTCCGGTAGCCTGCAGCGGGTAGAGGAAAACTTGAACACCGCGCGGATCGCCTNCTCGT
TATTTTCGGAATACTTACGCCCGGCGTTGGCCGCAGCTTATTGCCGGCAAGCCGGAAA
TGATCGNCAACCGTGTTTACGCCAACCCGCATGGGGGAAACG

Sequence 364

AGGTACTAACTTTAATTAATGAGCTAACGTCATATTTTTTAAGTTTTTCAATTCGGTTT
AAAAATCCTAATTCAAGTAAAAAGATTACTTTATGAACAACAGCACCTTGAGATTGATT
AAGTTAATAATCGTTTCATTGTTCCGCCAGTAGCTAAACATCATCAATAATTGCTACTTT
TTGGCCTTTTTTCAACATATTAGTTTGGATTTCTAGAGTTGATTTACCATATTCTAAATC
ATACTCAAACTAATAACGTCTCCTGGTAATTTTTTAGGTTTTCTTACCATAATAAAAGG
TTTTTTAAAAAGCTGCAGTAGGTGTCCCAAACAAGAAACCTCTTGCGTCTGGACCTAT
AATAACATCTGCATCTTAGCTAACTCAGCCATTGGATTAATTGTGTAAATTTAAGCAC
TTCTCCATTGCTAAAAGTGGTGAAATATCTTAAATACAATCCCTTCAATTGGGGAAA
TCTTTAAACATCTCNGGATGGTATTCTATTAATTAATGAATTGAATTTTTTTGGC

Sequence 365

CCGCGGTGGCGGCCCGAGGTACCAAAATAAAGGGTATTTGCTACCTTTAATACTTGCCAG
TTCAGGTTGGAGGCACAGGCAGCAGCAAGAATGGAAAGAAATGTTCTTACAACATTTTCA
CAGGAAATGTCCCAGTTAATTTTGAATGAAATGCAAAAGCTGAATATTCCAGTTTATTCA
ATGATTTTGTTGAATCTGAATTTTTTTTGAATGATGGGGATTCACTTATCACATGTA
TCTGTGAGATATCATTTAAGCCTGGGCAGAACCTCCATTTCTTCTATCTGGTTGAACGCT
ATCTTGTTGATCTTATTAGCAAAGGAGGACAATTCACCATAGTTTTCTTCAAGGATGCCG
AGTATGCNTATTCAACTTCCCTGGACTTCTTTCTTTGAGAACTGCTTTAATTCTTCATCT
NCAGAAAGAATACCCCATTTGATGTTTCAACAACATTTTCGAGATGCTTATCAAAAAGAG
TGGGGAAAGTTTCTTTGGAAGANGAGTTACCCCATATTTNCTGATTGTTGGCAGACGAAA
NGCCTTGAACGATCTACAAAACCNACAGCTTTTTTAACTTTTTAAATCNTTCAATTCCTTG
GGGCAAAGGGAANGNTNAACNTTTGGTACCTTGCCCGGG

TABLE 1
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Sequence 366

CCGCGGTGGCGGCCCGCCGGGCAGGTACGCGGGGAAATGCAAAAAAATCAAATCAATTT
AATAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATAT
TTCACCACTTTTAGCAAATGGAGAAGTGCTAAATTCACAATAATCAAATGGCTGAGTTAG
CTAAAGATGCAGATGTTATTATAGGTCCAGACCCAAGAGGTTTCTTGTTTGGGACACCTA
CTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAACCTAA

Sequence 367

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGTAGGCCATTACCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTCCAATAGTTATCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCC

Sequence 368

ACCGCGGTGGCGGCCGAGGTACGGCCACACTGGGACTGAGATACGGCCCAGACTCCTACG
GGAGGCAGCAGTAAGGAATTTTCCACAATGAGCGAAAGCTTGATGGAGCGACACAGNGTG
CAGGATGAAGTTNTTCGGAATGTAACTGCTGTTATAAGGGAAAAAANAAAAAAAAAAAA
AAAAAAAGGTNCCTGCCCC

Sequence 369

GGCGGCCGAGGNACAATATAGNCATCGCNTTAAACNGCCNANTNTTAANCNCGCCAAACT
TGGTTACTGAGAGCCCTAAGGAACTAAACC CGCATAATGCCGGGCACAGCTTGAAAAGC
AATTAGAGGAAGCAAGANNAGNNNTTCCCTCCCTTCCAGNNCCTCAGCAGGCCTGGCTGAA
GGCCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAAATAGCAATAGCAATAAGAAGA
ATGCCATCCCANGGAGCACACCAAAATTCNGGAACCAACCNCTCCCGGANCAGGCNTCCAT
TGNTCACGAAGCTCACGCNNGGCAGNCCGCAACTTTACTTTGNAGNAACCTCCCCACTTG
GCCAAGGGAATTCNCCCCCGGGCCTGGAAGAAAAGGGNTCTCCACCCGGAAAGGGGCGN
ACCTTTTCCCAAACCAGCCTTTCTTAAAGCNAAAAGCAAACCCNCTCTTTTGGGTTTC
NCAAAGGGGGCNGNACAAAAGGGAAGGGTTTTGGGGCNGGGGGGGGGAACAAAANCCCC
NCATTNGGAAGNTTGCCCCCGGCCGAGGGGAAGGGGAAAAGGTTGGNCCCCGGTTGGGGG
GGG

Sequence 370

ATTGTTGCTCNCCGCGGTGGCGGCCCGCCGGGCAGGTACANGGAACTGCCAAAGGCAACA
GAAATCTTTCTCCCTATGTCCAGCCTACCCCACTTTACCGAGGCCAACAGCCGCCTC
AGAAACCAGATTCAGGAGCTAACATGCCCCAGGTCTCACGAGGATCAGAGACTCCAGAGG
CCAGGGAAGGAGANNAAGGTAGNCAAGCGGGGGTGGTCTCAAATCTGGTTGNGCTCGAGC
TATGCAAATGCCTCTCATGGAGATGCGAGGACCTATCTATTATGATGACCAGGGCCACAT
CCGGAGGGGGCAACAGACTTTCATNTATCAAGCCCTT

Sequence 371

AGGTACTATTGACTAAAGTCAGTTGGGGGAGAGAGAGGCGGAAGTATATTACTTTTATGC
TTGGTTATACTAGAGAACAAATAGAACTGACTAAAGAAACATTAGATCAGTGGTTCTCA
GAGTATTGATATCTGGGAGTCCCAGCAACAGTCTGAGGAGGTTTCATGAGTTCAGAATATT
TTGATAATAACACTAAGATGGTATTTACTCTTCTAACTGGGTAGATATTTGCACTGGT

Sequence 372

CCGGGCAGGTACCGGGTCTAGGGAAGATGCAGAACACTTCAGCCTGGCAGAAGGCTCTAA
AGATCGTCAACCTTTCCTCTGTTTCATTTTGAATTTTAAAAATATGCTAACTTAGCTGA
AAATCTCATGGAAACCAGGCTCCTCATCAGACTTGAAAGTCAAACCGGTTTCTCAACAAC
TTCTCTTTATGGTTCTGTATGGCTCCACAGAAAACCAGAAAAACATTTGGGGCAAGAAGC
TATGACTCTGTGAGGCCACATGGGAGCAGGCAGTCAATTATTACCTAAGGAACACCCAG
TTAGCATGAAGTATCCCATCACCTCGGTATTAAGCCCTGCATGCATTAGCTATTACCT

Sequence 373

ACTTTTTTTTTTTTTTGTCTCAATAGAAGTATGGAATAATTCCAGGTAATTTAAAGCATA
TTTTTCAATTGGTGTAAGCTGCTCCATGAAGTCAGCTAGCTCCTCTAATTGGGATGGTTC
TTCATCACACGGCATGTTCTCAGAGTCTGATGACAGAGCATCAGTGTGTGGTCCCAGCAC

CCCCTCCTGTGCGGACTTCTGGGCATCCTCCTCCAGATACTCAATACTCTTGAGGGCCTG
AGGAAAGTCTCTATGAAAGGTCTTGCAATTTTGGGTGCAATGGTTTCCGTGACAGAAGGT
TCCTGAGAAAGCACCAAACTCCTCAGCTTTGACCGGAAGCCAGCATCACGGACGCGT
GGGTGGAAGCTTGACCT

CCGGGCAGGTACCGCTACTGAAATTATTAACATACACTACAGATCAATTATATAANTAT
GTTAATATCTTTAGAAATCAAGAGTTGCAGCATAAGAGAAAGGGATACAAAAACAAAACA
AGCAAAGAAGTTACATAAAAAACGTAACGTTGTATTGAAAAACCAGTATGAACTTATGAT
TTAGTTTTCTTTCTAAAAACGGACGCGTGGGTGGAAGCTTGACCT

NGCGNTGCGCTCACCTGCCNCTTTCCANTCGAGGNAACCTGGTCGTGCNAGGGTGCNA
 NTAATGAATTCGNCCAAACNCCGNGAGNAGGCGGTTTTGCGTNATTGGGGCCGCT
 ATTCNCTTTTCTCGCTCACCTGACTTCGCTGCCGCTCGGTCGNTCGGCTTGCCGCCGA
 AGCCGGGTAATTCAAGCCTCCACTCAAAAAGGGCCGGGTAATTACCGGGTTTNTCCAC
 CAANGAAATTTCAAGGGGGGATTAAACNCNAAGGGAAAAANGAAACATTGTNNGANNC
 AAANAAAGGGCCCNNNCAAAAANNGGGCCANGNNGAACNCNCCGTAAAAAAAAG

[illegible]

CGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGTGATG
CTGGCTTCCCGGTCAAAGCTGAGGAGTTTGTGGTGCTTCTCAGGAACCTTCTGTCACGG
AAACCATTGCACCCAAAATTGCAAGACCTTTCATAGAGACTTTCCTCAGGCCCTCAAGAG
TATTGAGTATCTGGAGGAGGATGCCAGAAGTCCGCACAGGAGGGGGTGCTGGGACCACA
CACTGATGCTCTGTATCAGACTCTGAGAAATGCCGTGTGATGAAGAACCATCCCAATT
AGAGGAGCTAGCTGACTTCATGGAGCAGCTTACACCAATTGAAAAATATGCTTTAAATTA
CCTGGAAATATTNCATACTTTNTATTTGNGGCNAAAAAAAAA

[illegible]

Sequence 379

TABLE 1
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GAATTGNAGCTCCCCGCGGTGGCGGCCNNCCGGNCAGGTGGAAAGGTGGGTGGGGAGAGG
GAGGCTTATTTGTTGCTGCAGTGTAAGTAACTGAAACCTAATTCATATGACTCAAATAA
GGTATATTTGGTTAGATCTAGGTGAGTTCTACTTTAGAGGAAATCCTGGTAAGTGTGTT
TGTTTGTAAGTTATAGCTGTAATTAATTTTCCCTGTATTCAAAGCCCCCAAACCTGCAT
TCAGATACTATGCATTTAGACTTCCTTAGGCAAAGTCAAGGCAACAAGCTGATGATTCTA
AGCTATTATTCAAGGAGTATCTACCATCATAAAGGTGGTTTAAGTCATATAGGATAATAT
CAATCAATAATACAGGGAGATGGCAAAAATTTTTGGGNAAANCCCAATATTANCTTGGG
TTTATGACCCCNAAATCTCACACTTTGGGGNCAATATGGGAAAGGCTTTTTTAAAGACCC
GGGAGTTCAAGACCNGCCCTGGGCAACATTAAAAAACCTCCTTTNNNCCAAAANCTTTAA
AAAA

Sequence 380

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTTACAAGTCGACCCAC
GCGTCCGCTTCAGAATATCCAATTCATGTGAACTACAGGAAATTATAGTTTAGATATTTT
TAAATGATTTGCCTGTCACCGTATAACACAAGGGTGTGATGACCAAGCTAGATCTCTTA
CCATATCATTAAATAAAAGTCAAATTTTAAATTTGTGCCCAATTTGGCTGGGTGTGGTGGC
TCATTCCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 381

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCC
GCATTTATTAAGGCTTGATATGTTCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAA
TTGATCTTAACCACAAGGCTGAGAAGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGT
ATTAAATCCTCCAGAGAAGCCTGTAGTGTGGGATGCAAATATTTTAAAGTGTGACCATGA
GGTGTTTTTTTGTGGACCATTTTAAAGCCAATGATAGGTTCTAAAGCAATCTCAACCTGA
GTTAGGTAGAATGGGTGGTTATCTGCACTCTAGCGGCCCTTCATAGCTATTGTATTCTG
GATTTCAATTCGGCACTTTATGTATTAGCTAAAAATTTTATGACCAAGCTCTTTGAAGTA
TACAAAGTAAATCTTCAAGGTGGATAGTTTATCCAAGTGTAAATGTGTTGCACTAGGTC
AGCTTGGAATTTTGTAGTGAATTTTGGCATCATTGCATACATCTGTTTGTGTACCTGCC
CGGGCCGGCCGCTCTAGAACNGTGGATCCCC

Sequence 382

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATTGACTAAAGTCA
GTTGGGGGAGAGAGAGGCGGAAGTATATTACTTTTATGCTTGGTTATACTAGAGAACAAA
TNGAAACTGACTAAAGAAACATTAGATCAGTGGTTCTCAGAGTATTGATATCTGGGAGTC
CCAGCAACAGTCTGAGGAGGTTTATGAGTTTCAAGATATTTTGAATAAACAATAAGATGG
TATTTACTCTTCTAACTGGGTAGATATTTGCACTGGT

Sequence 383

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATATCTGCATATACACCAT
TAATTTTACATCGTTGAGGTAGCCAAAAGTCTCGTAAGTGGGCTTTTATTAAATAATAT
AATGTTCTTAATAGAGGAAAAAGGAATTGAATACATTTTAAAAACAAAATAACAAAACC
AATCCATTGTCCACAAAAAGAAAATCAGTGGAGACAAAAGCAGTTTAATTTGCTGGATTC
TTTTGTGGCTTATTTTTTGTAGTATTATTTACAAAATGTTAGACTAATTTTTAAGCAATAT
TAATAATAAGCAACATACAACCTCCAAGAATAATATAATAAATAAATAAAGTGGGACGCGT
GGTTCGAAGCTTGCTCGNNGGGGGCGGNCGCTTCNAGGCCCNCCCGGGCAGGTACCCA
GTNATCACATAAATTCTGCAATCATNTGGNTATTNAGCTTNACNTGNTTTTTTTATTTGN
NGAANTTGTTGTTGATTGAG

Sequence 384

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTTACAAGTCGACC
CACGCGTCCGCTTCAGAATATCCAATTCATGTGAACTACAGGAAATTATAGTTTAGATAT
TTTTAAATGATTTGCCTGTCACCGTATAACACAAGGGTGTGATGACCAAGCTAGATCTCT
TTACCATATCATTAAATAAAAGTCAAATTTTAAATTTGTGCCCAATTTGGCTGGGTGTGGT
GGCTCATTCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 385

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT

TABLE 1

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TTAAGAAATAGGGTCTCACTCTGTCCCCAGGCTGGAGCCATTATAGCTCACTACAGCTT
CTGACTCCTAGGCTCAAGGGATCCTGCCACCTCAGCCTCCCTGGTAGCTGGGACTATAGG
CAGGAGATCGCTTGAACCGGGAGGCGGAGGTTGCTGTAAGCTGAGATCGCGCCATTGCTT
TCCAGCCTGGGTGCCAGAGCAAACTCTGTCTCAAAAAAAAAAAAAATAATAATAATAAA
TAAATAAAAAGGCAAGGAATATAGGGAAAAGTCAAAGAGATGGACTGTGAGAAGACTGG
GAAAGCCAGAAGAATGGNGGAAAATGTAGCATGGAGTAAGACAATAAAAAATATAAGAGGA
CTCATTTTCGGACGCGTGGGTGCGACTCACCTCGGCCGCTCTAGAACTAGTG

Sequence 386

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTTACAAGCTTCGACC
CACGCGTCCGGGAAAATTTTAATTAATAATAGGTGAACATTTTAAATGACCTAATACATAT
TTAGTCCACATTGAACTTTGGCATTGTGTCATTGCCATTAAATTTTGATGGCATTAAA
ATTTGATGCCATTAAATTTTGATCAGTAGGTAGCATTTTTTCTTAGCTACAATTGTTT
TTTTTAATTATAAGTATTAATAAATTCATGAAGATGATTCTTTTGTAACAGTTTTGCA
TAAAAAGTAAGTCTCATTTTAAAGCAACTACCAACTTACTGGCCACCT

Sequence 387

AGGTCTTCGACCCACGCGTCCGATGGTTTTTGCAAAAATTGAAAATGCATCGATATTACA
GTTAATTTTTTCAGTGTGTATGTGGTATTAGGCTTAGAACTATAACACAGGAAAGTTTTTA
GAGTATGTCCACTCTGGTTTACTCCTTTGTAAGTATTAATACCTGATAATTTACATCCTA
CAGCCCTGCCTTTTTTTTTTTTTTCAAGTTTGTCCAGCAAGTCTTGGCCCTTTGCATT
TTCTTAATACATTTTAGTACCTGCCCC

Sequence 388

CCGCGGTGGCGGCCGAGGTACAAAGAACAAGGGAAGCTAAGGAAGAAAAGATAGTCAAT
AAAAGATGTCTCATCTGGGCTTAGTGGCTCATGCCTGTAATCCCAACACTTTGGGAGGCT
GAGGCTCGAGGACTGCTTGAGTCCAGGAATTTGGGCAAGTAGGAAATTACTGAACAGCTG
CTATCACAGACAAATGCCTAACATTGTGAAGTGCTACACAGGGGAAGGAGACCCACGCTA
AGAGGAGAGCATGCACCCAGACACAGAAGTCAAGAGGACACAGTTCAAAACACACATACAA
GAGGCTTAGGCACCTGTGGGCGTGTGTGTGCTCACAGCCAGCAAAATGAAAAAATCCCG
AGCTCTGAAGGAGAGGCAAGTGCATGGCTTCCGTACCTGCCCC

Sequence 389

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGA
TGGTTTTTGCAAAAATTGAAAATGCATCGATATTACAGTTAATTTTTTCAGTGNGTATGT
GGTATTAGGCTTAGAACTATAACACAGGAAGTTTTAGAGTATGTCCACTCTGGTTTACT
CCTTTGTAAGTATTAATACCTGATAATTTACATCCTACAGCCCTGCCTTTTTTTTTTTTT
TCAAGTTTGTCCAGCANGTCTTGGCCCTTTGCATTTTCTTAATACATTTTAGTACCTGC
CCGGGCGGCCGCCGCCGCCGGGCAGGTACNACTACCTCTTAAAGTTGTCTTATTGGAGA
TTCTGGTGTGGAAANAGNAATCTCCTGTCTCGATTTACTANGAAATGAGTTAATCTGG
AAAGCAAGAGCACCATTGGAGTAGAGTTTGCAACANNGANGCATCCAGGTTGATGGAAAA

Sequence 390

TCCCCGNGGTGGCGGCCGAGGTACTATTGACTAAAGTCAAGTTGGGGGAGAGAGAGGCGG
AAGTATATTACTTTTNTGCTTGGTTATACTAGAGAACAAATAGAACTGACTAAAGAAAC
ATTNNATCATTGGTTCTCAGAGTATTGATATCTGGGAGTCCCAGCAACAGTNTGAGGAGG
TTCATGAGTTCAGAATATTTTGATAATAACACTAAGATGGTATTACTCTTCTAACTGGG
TAGATATTTGCACTGGT

Sequence 391

AGGGCGAATTGGAGCTNNCCGCGGTGGCGGCCGAGGTCTTCNACCCACGCGTCCGATGGT
TTTTGCAAAAATTGAAAATGCATCGATATTACAGTTAATTTTTTCAGTGTGTATGTGGTA
TTAGGCTTAGAACTATAACACAGGAAGTTTTAGAGTATGTCCACTCTGGTTTACTCCTT
TGTAAGTATTAATACCTGATAATTTACATCCTACAGCCCTGCCTTTTTTTTTTTTTTTCA
AGTTTGTCCCANCAAGTCTTGGCCCTTTGCATTTTCTTAATACATTTTAGTACCTGCCCC

TABLE 1

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Sequence 392

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTACCTGAAAATGCTTATTCTAGCTT
CACATTTGATTGTTTGGCTAAGAAGAAAATTATTTATTAGACTTAATTTTCCTCACGAGT
TTAAAGATTGCTTCAGATCTTAACTTCTAATGAGGAAAGCTGAGAAGTCCAATGCCATT
CTGATTCTTGCAACTTACAAGTAGTCTTTTTTGTCTAGACGCTTTCAGGACCTTCTTTT
TTCCTCAGTCAGTGTATCCAAACCTTCACAGTGATATCTTTTGGGTACCT

Sequence 393

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCATTTATTAAGGCTTGTATATGT
TCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATTGATCTTAACCACAAGGCTGAGA
AGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTATTAATCCTCCAGAGAAGCCTGT
AGTGTGGGATGCAAACTATTTAAGTGTGACCATGAGGTGTTTTTTGTGGACCATTTTA
AAGCCAATGATAG

Sequence 394

GGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTCTTCTACCCACGCGTCC
GCACATTTTGATGGTCAGTCAATAACTTAAGCAGTTACCAAATACTAGGTATCCAAGGA
GCGAGAGGTGGGCGAGCATAAGAAACACATTTCTCATGGCACAGCTCTGCCAAAGCCCTG
CAGAATCATTACACATAGGTCTTTGGTTAGTAGCCCTGGCACAGAATTCTGATCTTAA
ACAAATATTGTCTATAATCAAGTAGAGCAATGCAATTAAGCAAGCAAGGTTTTG
GGGCCATGCTGAAATCCAGCCTTGCTATTTGCTGGCTGTGTGACCGTGGTTCCTTGGTC
TCATTATGCTTTGGTCCCGTATCTATAAACGGACGTAATAATGTCTCCCTCTCATTAT
TGTGAAGTCGAAATGATGTCTGTAAAGTGCCCAACACAGTACTAAAGGGCTATT

Sequence 395

CCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACCCACGCGTCCGTTTAAAGTAACAT
TCAGATTTGTGTGTGTGGAGAGGTTGTAGGGAACAGAATTGTAGGAAGGTGCTCACACCT
GTTTTGTTTGTGTTTATGTATATAGGTGGGTAGAAAATAAGGATTAATGAATGCA
GTAAGGTATTTGAGCACTCTTGTTTATCTTGTTAGGTGCCAACCAAATATTTTTATAGA
GATGTGGTTAAGCCTCTTGGCATGTTCAACTGTGTACCT

Sequence 396

CCGGGCAGGTCTCTTGTCTAGTATACTCAAGGCAGCCTAGTAAATTATTATTTATCTATA
CAATACTGAAAAACTTGTAGACAAAAACATGACTTGAATTGCTAAAAAAGCAAGGCTTACCT
NGANGGAGAATGAAAACTTCCGGACGCNTGGGTGCAAGCTTACCT

Sequence 397

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCGCGCGTCCGCATTT
ATTAAGGCTTGTATATGTTCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATTGATC
TTAACCACAAGGCTGAGAAGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTATTA
TCCTCCAGAGAAGCCTGTAGTGTGGGATGCAAACTATTTTAAGTGTGACCATGAGGTGTT
TTTTGTGGACCATTTTAAAGCCAATGATAGGTTCTAAAGCAATCTCAACCTGAGTTAGG
TAGAATGGGTTGGTTATCTGCACTCTAGCGGCCCTTCATAGCTATTGTATTCTGGATTTC
AATTCGGCACTTTATGTATTAGCTAAAAATTTTCATGACCAGATCTTTTGAAGTATACAA
GTAAATCTTCAAGGTGATAGTTTATCCAAGTGTAATGTGTTGCACTAGGTCAGCTTGA
ATTTGAGAT

Sequence 398

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCGCATGTTGGCTGGGCTGGT
CTCGAACTCCTGACCTCAAGTGATCTGTCCTGGCCTCCCAAAGTGTGGGATTACAGGCT
ACTAAAGCTTTTTATTTATTTCTGTGGATTTGAGTTATTGTGAGTGTCAATTTATTTTC
ATATGAAGGATTCCTTTTGGTATTTTGAAGAACTTCTTTATCAGAAATTAATTATCTCA
CTTTGAAAATTTTAAACAATCTAGAAACGCTTTTTTGTGTTTTGAAGAATAGTTTTCT
GGATGTAAATTTTGGTTAATTTGTTTTCTTTGAACACTGAATATTTAATCTTATGC
CTTCTGGCTTTCAGTACCTGCCCG

Sequence 399

CCGCGGTGGCGGCCGAGGTAGCTTGAGTCGACCCACGCGTCCGTTTCAGATCCGTTTCAGA

TABLE 1
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AACGTGAGTCTCTAGCTCAGGAGATTTCCACAACCTGTCCTTAGTAACCTGATCTTATTCT
CATGTTTAAACCTTGGCAGTGGGAAGTTCTTCCTGGTATCCTGCCTAATTTACTGGAGTTG
GCATTAATGCCATTTCCCCCTAAGGCGTGGCTCTTGGACCAGTATCACCTGAGAATTTGA
TAGACATAGACCCAGAGTTACTGAGGCAGGTGCTCTGTTTTGGGGACCAGCAATCGGTGC
TTTAGCAAGTTCTTTGGGTGATAGGTTTGGAACTACTGCTCTAAAGCATCATCTGTTT
TGACTTTGCCATGCACAATCTGAACTCACTCCCGTGAGGCCCTGCTCCTGATACTTTAAA
TCGTCCTGTCTCTTTTTCTGCCTCTCTGTGGAG

Sequence 400

CCGGGCAGGTACAGGCACCTATAGAATTTAAAGGGGAGATTTCTTTATTTTGTATTCAAT
GTATTAATAAGATTTTTAAACATATTTTGGAGAAATTGCTAATTAGTGATAATCCTGA
TGCCAATTCTAAAAACCTTTTTTTTTTTTGTAGAGACAGGGTCTTATTCTGTCACCCGG
GCTGGAGTGCTCTGGTATGATCCTAGTTCAGTGCAACCTCAAATACCTGGTCTCAAGCAA
TCCTCCACCTCAGCCTCCCAGTAGCTGTCTCTATAAGCATGCACCACCACACCTGGCT
AACCTTCTTATTATTTTGGTAGAGACAGTCTCACTATGTTGCCAGGCTGGTCTTGAAC
TCCTAACCTCAAGCAAACATCCCTCCTCGTGCTCCCAAATGCTNGGATTACCAGCATT
AGCCTTACAAGCATAAGCTACCATGGACTGGCTTTCNAAAAAATATTGGTTTAAATTC

Sequence 401

CCGCGGTGGCGGCCGCCGGGCAGGTGGAAAGGTGGGTGGGGAGAGGGAGGCTTATTTGT
TGCTGCAGTGTAACCTAAGTGAAACCTAATNNATATGACTCAAACCTAAGGTATATTTGGTT
AGATCTAGGTGAGTTCTACTTTAGAGGAAATCCTGGNAACCTGTTGTTTGTGTTGAAGTTA
TAGCTGTAATTAATTTCCCTGTATTCAAAGCCCCCAAACCTGCATTGAGATACTATGC
ATTTAGACTTCCTTAGGCAAAGTCAAGGCAACAAGCTGATGATTCTAAGCTATTATTCAA
GGAGTATCTACCATCATAAAGGTGGTTTAGTCATATAGATAATATCAATCAATAATACAG
GAGATGGCAAAAATTTTTGTGAAGAGCCAGATAGTANCTGAGTATGATGACCCCTAATC
TCAGCACTTTGGGAGGCTGATGGGAGAGGGTCATTTAAGACCAGGAGTTCAAAGACCAGC
CTGGGCAACATTAAAAACTCCATTTCTACCAAAAACCTTTAAAAAAATTAGC

Sequence 402

GCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGGGAGGACCTAGGCAACGGCC
TGAGACTCCGAGACTCTATGTTGAAGATGCCTGGACTAACCTACTGAAGATACGTGGTTT
TACCACAGCCAGCACCAATAGGAAGATATGAATGAAGCCATCTGAGACCAGCCATCTGG
CAGCCAAACTGCCAACTGACTGCAATGCATGAATGATCCCACTGACACCACGTAGAGCA
CAAATGAGTTGCCTCCACTGAGCCCAGCCCAAATTGTTATCCTATAAAATCATAAAAAACA
TAAACAGTTGTTTTAAGTCAAAAAAAAAAAAAAAAAAAGTGCGACCTGCCCG

Sequence 403

TACTATAGGGCGAATNGNAGCTNCCCGCGGTGGCGGNCGAGGTATTCAACAAGGGCCCTG
AGAGAGGGACAGGCAGCCCCTGTGAATCTTGCTGTTGAGCAGAGACAGGAGTCAGCACGT
GTGAGGGCAGCAGGGAAGTCTTCCTGGAGGAGTGAGACCTGGCGATGAGGAGGCACGGCA
GGGAGGTGGAACAGGCAGGAGAGACTCTTCAGGAATTGAGGAGATAGAATAGAGGACACT
AAAGCCTTAGAGAGGCCAGGGTGGTGGCTTGGCAGGATCATCGCTTGAGGCTAGGAGTT
TAAAGCAGCCTGGGCAACATAGCGAGACCCCATCTCTAAACACAAAAAATAAAACCTG
CCCG

Sequence 404

CCGCGGTGGCGGCCGAGGTCAAAGCTTCGACCCACGCGTCCGTGATGCTGGCTTCCCGGT
CAAAGCTGAGGAGTTTGTGGTGCTTTCTCAGGNACCTTCTGTACGGAAACCATTGCACC
CAAAATTGCAAGACCTTTATAGAGACTTTCCTCAGGCCCTCAAGAGTATTGAGTATCTG
GAGGAGGATGCCAGAAGTCCGCACAGGAGGGGGTCTGGGACCACACACTGATGCTCTG
TCATCAGACTCTGAGAACATGCCGTGTGATGAAGAACCATCCCAATTAGAGGAGCTAGCT
GACTTCATGGAGCAGCTTACACCAATTGAAAAATATGCTTTAAATTACCTGGAATTATTC
CATACTTCTATTGAGCAAAAAAAAAAAAAAAAAAAGTGCGGCCGCTCTAGAACTAGTG

Sequence 405

TABLE 1
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TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCC
GGAAGTTTTTCATTCTCCCTCTTTTTTTTTTTTTTTTTTTAGCAATTCAAGNCATGTTTT
TGTCTACAAGTTTTCCAGTATTGTATAGATAAATAATAATTTACTAGGCTGCCTTGAGT
ATACTAGACAAGAGACCTGCCCCG

Sequence 406

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTAC
CTGAAAATGCTTATTCTAGCTTCACATTTGATTGTTTGGCTAAGAAGAAAATTATTTATT
AGACTTAATTTTCCTCACGAGTTTAAAGATTGCTTCAGATCTTAACTTCTAATGAGGAA
AGCTGAGAAGTCCAATGCCATTCTGATTCTTGCAACTTACAAGTAGTCTTTTTTGTCTA
GACGCTTTCAGGACCTTCTTTTTTCTCAGTCAGTGTATCCAAACCTTCACAGTGATATC
TTTTGGGTACCT

Sequence 407

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTCTCTTATATTGAAGTAAATTTA
AAATTTAATACTTTTTATTTTTTAAAGCATGTATGGCATCATTTAGTCTTATTAAT
CTCTCTGCATCCATTCACCCATCCTTCTTTTTGTGTGTGTGTGTAGTGGTCTCTGTGAGA
GGGTTCATTAATGTCAATCCTGATCATTTCTTCTCAAGAGATGTCAGTAGATTTGTTTT
TTTTGCTTTGGACTTTTATGAATTGATTGAATTTTTATGCCAATTATTTTTAAAGTATTA
CATAGAAGAACAATGGACAGAAAAATTTAAATGCAATCAAATCTTGTTGATTTGAAGT
ATAGGAAATAATCTTTTTTTATTATACTTTAAGTTTTAGGGTACCTGCCCGGGCGGCCG
CTCTAGAACTAG

Sequence 408

CCGCGGTGGCGGCCGAGGTACTATTGACTAAAAGTCAGTTGGGGGAGAGAGAGGCGGAAGT
ATATTACTTTTATGCTTGGTTATACTAGAGAACAATAGAACTGACTAAAGAAACATTA
GATCAGTGGTTCTCAGAGTATTGATATCTGGGAGTCCCAGCAACAGTCTGAGGAGGTTCA
TGAGTTCAGAATATTTTGATAATAACACTAAGATGGTATTTACTCTTCTAACTGGGTAGA
TATTGCACTGGT

Sequence 409

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTTACAAGTCGACCCAC
GCGTCCGCTTCAGAATATCCAATTCATGTGAACACAGGAAATTATAGTTTAGATATTTT
TAAATGATTTGCCTGTCACCGTATAACACAAGGGTGTGATGACCAAGCTAGATCTCTTTA
CCATATCATTAATAAAAGTCAAATTTTAAATTTGTGCCAATTTGGCTGGGTGTGGTGGC
TCATTCCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 410

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGACCAGTGCAAATATCTACCCAGT
TAGAAGAGTAAATACCATCTTAGTGTTATTATCAAAATATTCTGAACTCATGAACCTCCT
CAGACTGTTGCTGGGACTCCCAGATATCAATACTCTGAGAACCACTGATCTAATGTTTCT
TTAGTCAGTTTCTATTTGTTCTCTAGTATAACCAAGCATAAAAGTAATATACTTCCGCCT
CTCTCTCCCCCACTGACTTTAGTCAATAGTACCT

Sequence 411

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACGCGTCCGA
TCACTTTTTTCATTGATACCTTATTAGATAAAACATTAGCCCCCTAGAGTGNNNTGTGAA
GGAAATATGCCTAATAAGAGATGATAGTTTTAGCAATAAATGAGCATTAGAACTATTATT
TATTAATGAAATGAACTGGTGGTCTGAAAGTGATGATAAACAGACAACTGTGGAAAATGA
ATTATTAATAATCCATGGAATTCCTTTTGAAGTTTATGAAGTACCTGCCCCG

Sequence 412

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGC
ATTTATTAAGGCTTGTATATGTTCAAGATCCAGTGAAGACTGTCTTGGG

Sequence 413

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACAACTTGATGCTT
TTGGCAGGAATTACAGAACAACCAATGCCATTCAAGTTGTGGAGATTATACTNGCAGGTG
AACTCGTAAAGAGAAGATTCTGGAATGCCTATATCTGAAAGCTTGAGTCGACACCTN

TABLE 1
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Sequence 414

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGGAATGAGTGAGTGCAGAACTGGC
AACCAGAAGACAGGAACAAGGCCTGGGAATGGAGCGGAAAGGTAGCTGCTATATATAGTT
CCTTCAGCCAGTAACGATTAGAGCCAATAGCCATCTGGATGATGAATGGCTCCTAATTGC
CTTAAATTACGGCAGTTAGCTAAGGGTTTCTGTTGCTACATGGGTTACCGTAGGCCGCTG
CACCCTGCATAACTGTCCTCAGGCCTGCGTCCCCTGAGTCTCAGCACTTGGGCCTCCACC
TGCCCG

Sequence 415

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTCCCAAAGTGCTGGAA
TCACAGGAATGAGCCACCACACCCAGCCAAATTGGGCACAAATTTAAATTTGACTTTTA
TTAATGATATGGTAAAGAGATCTAGCTTGGTCATGACACCCTTGTTTATACGGTGACAG
GCAAATCATTTAAAAATATCTAACTATAATTTCTGTAGTTCACATGAATTGGATATTC
TGAAGCGGCCCCNTGGGTCGACTTTGTAACCTGCCCGGGCGGCCGNTCTAGAACTAGTGG
GATCCC

Sequence 416

TATGGCGAATTGGAGCTCCCCGCGGTGGCGGGNCGAGGTNAAGCTTCGACCCACGCGTCC
GATTATTCTCTCCATTTAGGCTATAAATCTTTCAGTGTAGGGTGTTTCTAATGTCNTATT
CTTCCAAAAAAAAAAAAAAAAAAGT

Sequence 417

CCGCGGTGGCGGCCGAGGTACTCTTGATGTCATAAGATTAGAAAATGTGGTTAATTGTCA
TCAACCCATTAAGTTCTTAAATGTCATTGAATGGAGTCCTTGTCATGTTACAGAGGAGCG
TAAATTTGTGGTTAAACATTTTTTTAAAGATTACATGGTAGAGCCACAGTTTGTTATGCA
GAAGGAAAATTTAGCAAATATTATTTTGCTTAATAGCCTTTAAAAAATCGTATAAATTTG
ATTTGTAGTTTTATCCCCAGAGTCATTAGATTTTTCCAAAAAAAAAAAAAAAAAAGGT

Sequence 418

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGCCAAAGCCT
TAACCTAGATTGTTACTTATGTTTCTAAATCTGNNGAAGCACATTTCTTTTNTTNTNNT
TTTCTTTTACTGTTAATATCCTTATTCTCTATTTTACCAGTGGAGAATGNTTAGTATTAA
TTTCCATTTANCTCANGATTCAAGAAATGCAAAGTGCTATTTTTATCAAATTTCTGAAAG
CCTACTGTCTTCTGNTTTGAAAGTCCCACAACAGCTCTTTAATTTCTTAAGCCCCACTT
TCCTCATCAGCAAGTTGGTGTGGCAATGGATCATAATAGGTTGCTGGGAGGATGAAGTGA
GCGGACCGCGTGGGTGCAAGCTTGACCTN

Sequence 419

CCGCGGTGGCGGCCGCACTTTTTTTGTATTACTTCAACTTTTAAAAATTCTAAAGAAAAC
CATCATCTCAGACCAGCATTTCCGGACGCGTGGGTGCAAGCTTGACCT

Sequence 420

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGTCAAACATCT
CCCTCGTCCGGATCCTTCTAACGCAGGAGTCTCAGACGCAAATGCCGGCAAGGGCCAGGC
AGGTGATGTAAGATGCGTGGAGCAGATGCCAAGCCACAGGGAGTGGTGGAGACTGGGGTG
AACTGGAAGCACCT

Sequence 421

CCGCGGTGGCGGCCGCCCGGGCAGGTACACAAACCAGATGTATGCAATGATGCCAAAAGT
CATCTCAAATTTCCAAGCTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCT
TGAAGATTTACTTTGTATACTTCAAAGATCTGGTCATGAAATTTTGTAGCTAATACATAA
AGTGCCGAATTGAAATCCAGAATACAATAGCTATGAAGGGCCGCTAGAGTGCAGATAACC
AACCATTCTACCTAACTCAGGTTGAGATTGCTTTAGAACCTATCATTGGCTTTAAATG
GTCCACAAAAAACACCTNATGGTCACACTTAAATAGTTTGCATCCCACTACAGGCT
TCTCTGGAGGGATTAAATACTTTGG

Sequence 422

GGTGGCGGCCCGCCCGGGCAGGTGTCAAACATCTCCCTCGTCCGGATCCTTCTAACGCAGG
AGTCTCAGACGCAAATGCCGGCAAGGGCCAGGCAGGTGATGTAAGATGCGTGGAGCAGAT

TABLE 1

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GCCAAGCCACAGGGAGTGGTGGAGACTGGGGTGAAGTGGAAAGCACCT

Sequence 423

TNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATAATATAC
AGAGGTATAATCTGTAACATCAATAATGTAAAGTGGGGAAGGGCAAGGTGGAAAAGGAGT
AGAATGCTTGTATGTGACTAAAAATTATGTTGGTATCAGTTTAAAATATATTATTATACT
TTAGAATGCTATACCCATTCCCACAGTAATCCCATAGTAACCAAAAAGAAAATATCTGT
AGGATACACACAAAAGAAAATCAGAAGTAGATGCAAACTTGTCCTACAGGAAAAAAAAA
GCTATCAAAATAGAAAACAATAATGGAGAAAATAAGACACCAAAAGCTATAAGACTCACA
GAAAATAAATAATAAAATGGCAAAAAGAAGCGGACGCGTGGGTGGAAGACCT

Sequence 424

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAAGCTTCGAC
CCACGCGTCCGATTTGGCAGAAATTCAGGGTAATGTCAAGGTTCTTAAATCTGAGAGAGA
CAAGATCTTCTTCTTTATGAACAGGCACAGGAAGAAATTACCCGACTTCGACGAGAAAT
GATGAAAAGCTGTAAGAGTCCTAAATCAACAACGGCACATGCTATTCTCCGGCGAGTGGA
GACTGAAAGAGATGTANCCTTTACTGATTTACGAAGAATGACCACAGAACGAGATAGTCT
AAGGGAGAGGCTAAAGATTGCTCAAGAGACAGCATTTAATGAGAAGGCTCACCTGGAACA
AAGGATAGAGGAGCTGGANGNCCNTCCCGGGGGCGGGGNCNGCCCGCCCCNNGCAGGGT
CANATGATTGCAGAATTTATGTGATTCTGGGGT

Sequence 425

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTACTGAGCCACTTA
CAATTATTTCTGAAAAATCTCAGAGAACTGAGGATAGATCAGAAAATTTAAAGAAAGCAA
ATACCAAATTTTCAAACCAGGATAGGAAGTGAATACCTTGTAATACACTTTGTTAAGTG
ATGATAATTCTGAGTAAAAATTTAGAAGATTTGAGAAAAGCATTTGAACTTCTAGGGGC
CAATAAAATACCATGCAGAAGAATGTTTAAAAAGTCATGCCAAATTTGAATCCATTTGAT
CCTCAACCTCATCAGATGTTATATGCCAACTACTTATTTGGCTTAGATAATAATCATA
TAGAATGAAACTTTCCACAAATAGACTGTGGTCAGTGGCTG

Sequence 426

CCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCGACCCACCGTCCGGCAATGATGAGCA
AAAACAAGTTTGGTCCCCCTGTTATAGNGCCTGGTAAAGGTTTTTGTGTTGTTTTGCAG
GGGTGGGGGAACCAGGAAATCAGATCATCACAACAATATATACTTATCTGTAAGTATGGT
AACTGCTACAGCAAAGGGGCGTATCATACTATTAGCATACTAAGTTTCACTTAAAGAGGT
CGGA

Sequence 427

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGTCAAACATCTCCCTC
GTCCGGATCCTTCTAACGCAGGAGTCTCAGACGCAAATGCCGGCAAGGGCCAGGNAGGTG
ATGTAAGATGCGTGGAGCAGATGCCAAGCCACAGGGAGTGGTGGAGACTGGGGTGAAGTG
GAAAGCACCT

Sequence 428

TANGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCGACCCAC
GCGTCCGTGATACTTCTCCTAAGTGCCAGGCATTGTATTACATGTTGGGAGCACAAAGA
TGAATAATAACAATAGGTTACAGAAAAGATGAATTGATTGAGAGAAAAGAACCCTCCA
GGAGCCCTCAGCGTAGTAGGGGTTGGTGTGGAGGGTGGAGGAATGGAAAAGGCCCTGA
AATGCAGGCAGAGAAATGATGAAACAATTCAGGGGCTGTGGTGAAGTTAAATGAATATCT
TTACAGCAGCCTCNAAGACTGATCAGGTTACTATACCCTCTCTTNTGTCCACNGTGCATT
TNAA

Sequence 429

CCGGGCAGGTCAAGCTTCGACCCACCGTCCGGCAATGATGAGCAAAAACAAGTTTGGTCC
CCCTGTTATAGAGNCTGGTAAAGGTTTTTGTGTTGTTTGCAGGGGTGGGGGAACCAGG
AAATCAGATCATCACAACAATATATACTTATCTGTAAGTATGGTAACTGCTACAGCAAAG
GGGCGTATCATACTATTAGCATACTAAGTTTCACTTAAAGAGGTCCGA

Sequence 430

TABLE 1
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CCGGGCAGGTACACTCCAGCTCCTCTATCCCTTGTTCCAGGTGAGCCTTCTCATTAAATG
CTGTGTCTTGAGCNATCTTTAGCCTCTCCCTTAGACTATCTCGTTCTGTGGTCATTCTTC
GTAAATCAGTAAAGGCTACATCTCTTTCAGTCTCCACTCGCCGGAGAATAGCATGTGCCG
TTGTTGATTTAGGACTCTTACAGCTTTTCATCATTTCTCGTCTGAAGTCGGGTAATTTCTT
CCTGTGCCTGTTTCATAAAGAAGGAAGATCTTGTCTCTCTCAGATTTAAGAACCCTTGACAT
TACCCTGAATTTCTGCCAAATCGGACGCGTAGGTCTGAAGCTTGACACCTCGGCCGCTCT
AGAAGTAGTGGGATCCCCCGG

Sequence 431

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACGATTTAAAATCTC
CTCCTCTACAGCGGTGAGTATTGAAGCAGGTCTTTGAGGATGGGCNNGAATTAGAGTC
ACCAAAGGAGGAATACCCTCACAGTTTTCTGCAAGAGTCTCTTGAAACAATGGATGGTGT
TTATGGGTCTGGGGAAGACCCNCGCCCAATGTTGCTCCCCT

Sequence 432

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACACAAACACACACACAA
AGTTTAATATACTTTTTAAAAAATTTATTGTATTGTTTTCTTGAAATAGGGTCTTGCTA
TGTTGCCTAGGCTGGTCTTGAAGTCTGGGATTAAGCAATCCTCCCACTAAGCCTTCCA
AAATGCTGGCATTACAGGTGTGAGCTACCACAATCAGTCTCTTAGATTTTGTTTTTAAG
AACAATTCGAAGTTTACTGCAAAATGTGAAGAACGAACAGACTGTTCCACATATCCCT
TTTTCTTTACACACCGGACGCGTGGGTCTGAAGCTTGACCTGCCCC

Sequence 433

CCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCGACCCACGCGTCCGGCTTGAGGTGGG
TTTAGGAAACATTTGGTATCTNTGGCAGGGACAGATGTTGACCTGGCCGGTCGGCAGCTT
TTACAAACCTAAGGACTTCAGGGTCCGGTTGCGCATGAGGACCGGGGAGGACAGAGCTGT
TTGCAATAGGTGTGGGCTTTTATAGCATTGTGAGCATTTCACGTTAGCGTAAGTGTTGCT
GCTGTGCAGGTGGTCTCTGGGGCTTACAATCTTCCCAATGTTCTTCCCCACCCCTCCCA
CCATTCTGGTGAACAAGCCTCTTGGGATTCTTTGAAAAAAAAAAAAAAAAAACCT

Sequence 434

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATAATATACAGAG
GTATAATCTGTAAACATCAATAATGTAAAGTGGGGAAGGGCAAGGTGGAAAAGGAGNNGAA
TGCTTGATGTGACTAAAATTATGTTGGTATCAGTTTAAAATATATTATTATAACTTTAG
AATGCTATACCCATTCCCACAGTAATTTCCCATAGTAACCAAAAAGAAAATATCTGTAGGA
TACACACAAAAGAAAATCAGAAGTAGATGCAAACTTGCTACTACAGGAAAAAAAAAGCTA
TCAAAATAGAAAACAATAATGGAGAAAATAAGACACCAAAAGCTATAAGACTCACAGAAA
ATAAATAATAAAATGGCAAAAAGAAGCGGACGCGTGGGTCTGAAGACCT

Sequence 435

CAGGTACAGGCACCTATATGAATTTAAACGGGGAAGATTTCTTTATTTTGATTCAATGT
ATNAATAAGATTNTTAAACATATTTTGGAGAAATNGCTAATTAGTGTATAATCCTGATG
CCAATTCTAAAAAACCTTTTTTTTTTTTGNAGAGACAGGGTNTTATTCTGTACCCCGGGC
TGGAGTGCTCTGGTATGATCCTAGTTCACTGCAACCTCAAATACCTGGTCTCAAGCAATC
CTCCACCTCAGCCTCCCACTAGCTGTCTCTATAAGCATGCACCACCACACCTGGCTAA
CCTTCTTATTATTTTGGTAGAGACAGTCTCACTATGTTGCCAGGCT

Sequence 436

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTATTCAACAAGGGCCCTGAGAG
AGGGACAGGCAGCCCCTGTGAATCTTGCTGTTGAGCAGAGACAGGAGTCAGCACGTGTGA
GGGCAGCAGGGAAGTCTTCTTGAGGAGTGAGACCTGGCGATGAGGAGGCACGGCAGGGA
GGTGGAAACAGGCAGGAGAGACTCTTCAGGAATTGAGGAGATAGAATAGAGGACACTAAAG
CCTTAGAGAGGCCAGGGGTGGTGGCTTGGCAGGATCATCGCTTGAGGCTAGGAGTTAAA
AGCAGCCTGGGCAACATAGCGAGACCCCATCTCTAAACACAAAAAATAAAACCTGCCCG

Sequence 437

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCACGGTACCACGTAGCAAC

TABLE 1
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ATATGAGTATTTCTCTAGATAACTTTTTTTTTTGACAAGGTCTCACTCTGTTGCCAGGCT
GGAGTGCAATGGTGCAATCTTGGCTCACTGCAGCCTTGACCTCCCTAGCTCAGCTGAAC
CTCCCATCTCAGGACACCATTCCTCCACTGCCCATCCTGCATCTGCCTGCCTACCCCAA
AAGTGTTGAGAATACAAGCATGAGCCAGAGCCACGGAACCTGGCCTCTAGAGAGACTTTC
TATTTAGTTTTTTCTTCTCTTATTTGTGAAGCCTTGAAAAAACTACTGTGGTTTATTTA
GATTCTGGTTTGTGACTTTTTTAAATAAACTTTTTATTTTGAATAAATTTATGTTTGA
GAATAGTTGCAACATAATAAAGTGAGTTTTCATAAACGCCTTACCAGTTTCCCCTGNTG
GTTAACATTTTACATCACCATGCTGTTGCATTGGTCAAACTA

Sequence 438

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCATTTATTAAGGCTTGTATATGT
TCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATTGATCTTAACCACAAGGCTGAGA
AGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTATTAATCCTCCAGAGAAGCCTGT
AGTGTGGGATGCAAATATTTAAGTGTGACCATGAGGTGTTTTTTGTGGACCATTTTA
AAGCCAATGATAGGTTCTAAAGCAATCTCAACCTGAGTTAGGTAGAATGGGTTGGTTATC
TGCACTCTAGCGGCCCTTCATAGCTATTGATTCTGGATTCAATTGCGCACTTTATGTA
TTAGCTAAAAATT

Sequence 439

TCGAGGCCGCCCCGGGCAGGTACACAAACCAGATGTATGCANTGATGCCAAAAGTCATCTC
AAAATNGCAAGCNGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCTTGAAGA
TTTACTTTGTATACTTCAAAAGATCTGGTCATGAAATTTTNAAGTAATACATAAAGTGCC
GAATTGAAATCCAGAATACAATAGCTATGAAGGGCCGCTAGAGTGCAGATAACCAACCCA
TTCTACCTAACTCANGTTGAGATTGCTTTAGAACCTATCATTGGCTTTAAATGGNCCAC
AAAAAACACCTTATGGTCACACTTAAAA

Sequence 440

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTAAACTTAAAGTA
TAATAGTAATAATAAAAAAGAGGTGCTTTTCTCCTAAGTCAACATTTTAGAGGAAAAGA
GTCAATTCAGCAATTATCACATATGTGTAAGTGAAGCACATATGTGTAACCTTTCAAGA
GTGATTAGATGGTCTGTTGTCTTTGAAGTGATAGTCAAATATCAGGTGTGTTCTAGGGAG
GTTGTGTAAGACTTTTGCTTGTATTCTCCCGGACGCGTGAGTCGACTCAAGACCTGCCCG

Sequence 441

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACG
CGTCCGATTATTCTCTCCATTTAGGCTATAAATCTTTCAGTGTAGGGTGTNTCTAATGTC
ATATTCTTCAAAAAAAAAAAAAAAAAAAGT

Sequence 442

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTTACAAGTCGACCCACG
CGTCCGCTTCAGAATATCCAATTCATGTGAACACAGGAAATTATAGTTTAGATATTTTT
AAATGATTTGCCTGTACCGTATAACACAAGGGTGTGATGACCAAGCTAGATCTCTTTCA
TATCATTAATAAAAGTCAAATTTTAAATTTGTGCCCAATTTGGCTGGGTGTGGTGGCTCA
TTCCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 443

CGCCCGGGCAGGTACACAAACCAGATGTATGCAATGATGCCAAAAGTCATCTCAAATTC
CAAGCTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCTTGAAGATTTACTT
TGTATACTTCAAAAGATCTGGTCATGAAATTTTAGCTAATACATAAAGTGCCGAATTGA
AATCCAGAATACAATAGCTATGAAGGGCCGNTAGAGTGCAGATAACCAACCCATTCTACC
TAACTCAGGTTGAGATTGCTTANAACCTATCATTGGCTTTAAATGGTCCACAAAAAA
CACCTCATGGTCACACTTAAA

Sequence 444

ACNGNCAGGTACCAAGATTAAGGACAGAGTCCCTCCATTGGTCATTGATTTGNAAACCA
AAATGTATCTGTGACAGGTATTAATCCGGACGCGTGGTGAAGACGAAAGGACACGAGAA
ATANGGACCTANNCCGCTCTANAACCTAGGNATCCCNNNNCTGCAGGAATTCGATATCA

Sequence 445

Sequence 446

Sequence 447

Sequence 448

Sequence 449

Sequence 450

Sequence 451

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGCTTCGACCCACGCG

TABLE 1
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TCCGATTATACCCCTAAAAAAGTAGAAAGATGGAATAATTAGGAGTAAAATTAGTGAAATG
GAAAGATATGTTATAGAAAGGACCAAGAAACGCAAAAGTTGGTATTTGAAAAGACTGAAA
AAATTCATGAACCTGTGAAAACAGTGGTCAAGAAGAAAAGAGAGGCATATTTTGATCTCT
GTTTTACATGTTACTCAATGTTTCATTGCTGCCTCCCTTGTCCATAAAGTGCCTTTAGTGT
GTATGTTACTTTAGATTATCTTGGTGTCAAGCTTTACTCAGCAAAGAACCCTTTGT
TGTCTACTTTAAACATAAGTTATCTTTAAAGAATGGGTATCTTTTATAGTTCCATATT
AATGGCGAAGAACTGCAGGTAACAGTGCCTTACCAGCTGGGTTTTGCTAACTTTTCTC

Sequence 452

CCGCGGTGGCGGCCCGCCGGGCAGGTTTTATATTTTTTCTCTTTAAAAAATAATTTG
GTTTTGAATATTAATTTACATATTTCTAAGTTAAATCAACATTCGTAGAGGAATTATCA
AAAAAACTAGTAAGTCTGAAAAAAAACCATATTTTATATTCTGAGGTCCCGGACGCGT
GGGTCTGAAGCTTGACCT

Sequence 453

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCAGGTACCCAACACAACTA
TTCAATAAAGTAATCTGCTTTAAAAATAAAACACACTGAAAGGCCGAGGCAGGTGGATCA
CCTGACATCATTAGTTCAGACCAGTGTGGCCAACTGGTGAAAATTAGTCTCGACTAAA
AATCAACATTAGCTGGGCGTGGTGGCAGGCGCCTCTAATTCCAGCTACTCAGGAGGATGA
GGCAGGAGAATCACTTGAAGCAAGGAGGTGGAAGTTGCAGTGAGCTGAGATCGTGCCATT
GCACTGCAGCCTGGGCAACAGAGTGAGACTCCGTCTCAAAAACACCACCACCAACAAAAAT
AAACACAACAGAATTATTCTGCAATACAGATATTGGAGTAGCTGAGTTCATCTCAAAT
TTGACTATGCAGGTTGACAGGTGATCTTGGCAAACACTTATCCTTTCTGAAGTTCAACT
TTTTACCAAATGGTATTGGGATACAACACTTGCTCTTGCTATCTCACATGAATTATCC
ATTTTGGACAACCTTGGTAACTATA

Sequence 454

CCGCGGTGGCGGCCCGAGGTCCCAAAAGATATCACTGTGAAGGTTTGGATACACTGACTG
AGGAAAAAAGAAGGTCCTGAAAGCGTCTAGACAAAAAAGACTACTTGTAAGTTGCAAGA
ATCAGAAATGGCATTGGACTTCTCAGCTTTCCTCATTAGAAGTTAAGATCTGAAGCAATCT
TTAACTCGTGAGGAAAATTAAGTCTAATAAATAATTTTCTTCTTAGCCAAACAATCAA
TGTGAAGCTAGAATAAGCATTTTCAGGTAAAAAAAAAAAAAAAAAAGT

Sequence 455

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCTACAGCATCCTGATAA
CAGCCTCTGCCCTGGGAAACAGACTGTGACCATGCATTTCTAGTCCAGCATATCCTATCA
GAAGACCAAATGGCTTCATCAAAAACAGAGTGACAACCTCTTCTCTTGCCTCTTCTGTG
CTTGTTAACAGGCAGCATTGGGGCAGGAGAGCCTGCAGGCCTTTACGGGCTGCTTGAGTT
CTCACCTGTTTGTCTGAGCTCTGATTCCTCTGCCCTGTAAGCGTAAAGGAGATGTTGCTGA
GTGGAAGACCTCTAAACAGGCAGCCAGGAAGCCAGATTTAGGTCCATCTCTGCCTCTA
ACTGGCAGCTTTGCCCTGGGTAAATCATCAAGTGGGCAATAGTTTCTCTCCTGTAAAAGG
AAAAGATTGGGTTTAAGATTGTTTCTGAAGTTCTCTCTAGATTTAACCTGGAAGGAGTTG
AATTGCTAACC

Sequence 456

CCGCGGTGGCGGCCCGCCGGCAGGTACAACATTTTACATTTCCAGGGACTGCAAAAATGT
TAGTTCCTTCCCCCATCATTTAGTTTGAAAATTCTTAGATAATTCTTTGCTGGTAAATTC
CAACAGAATAGTTAGCACACAGGTTCCACACACACAAGTTCTAGATAGGAATCTGAAGCA
CCACAATGAAAAGAACATTTAACATCTTTTAAAAATGTTTAAATGTTATCAGAAAGATGTT
TGGTATATGTGTTCCATGCATGCTCCTGCTGGTTCTATTTGAAAAGAAGTTTTTACAGT
TATCTGTTGTCACCATATTGTAAACGGACGCGTGGGTCTGAAGACCT

Sequence 457

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACAATAAATAGCA
TTCCACGGTGACCACAAGTCTTGAATCAGTTCAGGTGTCGTGCGTGGCGGTTGACACC
GCTGCCTTCTGACGGTAAATGTATTGTAGAATTCATGTTGTATCAGGCTTCAGTTTCCTC
ATTCTAAAATGAGAGGATTGGATAAGTTAGTAGTTTCTAATTTTTACTTTAATCAGTGG

TABLE 1
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CATCTCCCATTTATTTTTCATTTGAAATAAAACTTTTGAATTTTATCTTCTACCTAAATA
ACATATTTTGTTCATGTTTCAAGATGAAGCTCACACTGAGTTGGAAAAAGGAAAAAGC
AAAGGATCAAAGCTGGGGGAAAATACTGGACCATGTGCTTACCTCATGGTGCCAAATAA
AGAGAAAATGGGGAGAAGATAGGGACAGATAAAGATCTATTTGCTCGGATTGNGCTCTCA
TCCTTGGCAACATGTTGACAATGCCCTGGAAATA

Sequence 458

CCGCGGTGGCGGCCCGAGAGCTCCAGGACGAAGGTATAAACACAGCAGAGGGCAGAGCCT
GATTTCAATCAGGGGCTACTCTAAGAAAGGCAGGAACTAGATAAATACATTTAAAAGAA
ATTCCTCAGTGGCAGGGACAGTAGAGCAGCAGGGGGAGATCCCAGCACGGACAGGTAAACA
GTGTGATGTGGCAGAAAGGCTTTGGTTGCAAGTGGAGAACAGATGTCTCTGGCTGCCTCT
GGCAGCTGCCTCCTTCTGGGCCTTGACTTTTCAAAGCCAGGCCAGGCCTCCCCACCCCTG
GACCACCTGTAGCTGGTTCAGAAGGCCCCAGGCTGGGCTTCATAGATGAAGACACAGCTG
ACTCAAGTCTCTGGCTCTGTGGCTCTTGGCCACCTTGCCGCTCCATAACGGTGTTTCT
CAGGTCAACCCCTCTTCTCCATTCTACTTCAATGACCTCAGGTCAGGCCCTTGCCACTT
CTCTTCTGGACAAAGATGACAGCCCTTCACTGGTATCCTCGTCTNCAACCTAATTTATNC
TTCACAGTGCTGGCAGAAGTGACATCTTTAAACACACAACGACCCCN

Sequence 459

GCGGCCGAGGTCCGCACTTTTTTTTTTTTTTTTTTTTATTTTACTCCAGAATTTTCCTTTA
ATATTTAGGACTCCAATCTTACTTACAAAATAGCTTTTATTTACGTGCACATGATCGTG
GTTTCAAATTTTCTAAGCACTATGCTAAATTTGTCATCAAACATAACAGATTCCCATC
TTACAAACATAGTTGCTAGTTGAATGAGTAAAGAGATTTCAAATTTCAATTCAAGGAGG
CATGTCTAAAAGACCAGACCATTCAATTTGATGAAATTGTAAATGCCGATCATCCAACCTA
ACAGGAACTGCACATTTGTTCTTTCTAGTTAGAAAAAATAA

Sequence 460

CCGCGGTGGCGGCCCGCCCGGGCAGGTCTTCGACCCACGCGTCCGTGATTGCCTATTGTT
TGTTGATTGACTGATTTATGCCTCTAAGAGGAATATCTTTTGATAATATTAATAAGAT
GTCCTAATACAAAATGATAGAGTTCAGAAATAATAAGAATCTCCTGGCCAGGCGTGTTG
GCTCACGCCTTTAATCCCAGCACTTTGGAAGGCTGAGGTGGGCGGATCACGAGATCAGGA
GATTGAGACCATCCTGGCTAGCATGGTGAAACCCTGTCTCTACTAAAAATACAAAAAAA
TTAGCCCGGGTGTGATGGCGACCT

Sequence 461

CGCGGTGGCGGCCCGCCCGGGCAGGTACAGAAAGGACAAATACATCAGTAGAAAAGAAGA
CAATATAAGGGCAGATTGAAATATATACGTGAACGTCACAAAGACCAATTACTGCCATTT
CAATTCAATGAGGAAATAATGATGTATTTAATAAATAGTGCTAGAATGCTGCATTATCTG
TCTAGGATGAAAAAAAAAAAAAAAAAAAAAGT

Sequence 462

CCGCGGTGGCGGCCCGAGGTGGAATGTCTGTTTTACAAAATTTTGTATTTTCTCCTAAT
AGTATGAGGTNGAAGAAATCTACATCTTCTCAAGTGAGCTTATGATTAACCTCGATGAGTT
TTCTTGCTATTCTCAAATCGGAATNTCCAGACCTGGCTAGAACTAAAGTCTAAGCCCAT
TCATTAAAGTCTTGAATTTATTTACTTTNGCCAAGAACAGCTATATAAAATTAGATTCTT
CCTGGTATAAAATTGGGTGTTTTCTTAGATATTNGCTATCAAAGTCATTTTTCTTGAA
ATCGGACGCGTGGGTNGAAGCTTGACACCTGCCCGGGCGGGCGGCCGCACTTTTTTTTTT
TTTTTTTTT

Sequence 463

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACTGAAAG
CATACAATGAGGGTTCACGGATTTCTAAGAAATGCATTTCCCTTGCTATGTTTCATCAG
CCTTTAATACTTTGGCTACAAGGCATATCAGAGAAAGGGAGGTTAAATTGGGTAATGACA
AAAGAACATATGTAACCTTGGAATAGGAAAAATGTTCCAGAAATGGGATCAATGTGCCA
GCAATAAGCATAGTTTCATTTCAATTTGAAATTCAGTTAAAGAGCCCAATAAACAGTTCCA
AACCGGACGCGTGGGTGCAAGACCT

Sequence 464

TABLE 1
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ACTATNGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTCGACTCAAGCTTTCAG
ATATAGGGCATTCCAGAATCTTCTCTTTACGAGTTCACCTGCTAGTATAATCTCCACAAC
TTGAATGGCATTGGTTGTTCTGTAATTCCTGCCAAAAGCATCACAAAGTTGTACCTGCCCCG

Sequence 465

CCGCGGTGGCGGCCGAGGTAATAGCTAATGCATGCAGGGCTTAATACCGAGGTGATGGGA
TACTTCATGCTAACTGGGTGTTCTTAGTGTAAATAATTGACTGCCTGCTCCCATGTGGCC
TCACAGAGTCATAGCTTCTTGCCCCAAATGTTTTCTGGTTTTCTGTGGAGCCATACAGA
ACCATAAAGAGAAGTTGTTGAGAAACCGGTTGACTTCAAGTCTGATGAGGAGCCTGGT
TTCCATGAGATTTTCAGCTAAGTTAGCATATTTTTAAAAATTTCAAATGAACAGAGGAA
AGGTTGACGATCTTAGAGCCTTCTGCCAGGCTGAAGTGTCTGCATCTTCCCTAGACCC
GGTACCTGCCCCG

Sequence 466

CCGCGGTGGCGGCCGCCCCGNCAGGTTACAAGCTTCGACCCACGCGTCCGGGAAATTTTA
ATTAATAATAGGTGAACATTTTAAATGACCTAATACATATTTAGTCCACATTGAACTTT
GGCATTTTGTCAATTGCCATTAAAATTTTGATGGCATTAAAATTTGATGCCATTAAAATTT
TGAT

Sequence 467

CCGCGGTGGCGGCCGCCCCGGCAGGTCAAGCTTCGACCCACGCGTCCGTGATAACTTCTC
CTAAGTGCCAGGCATTGTATTACATGCTGGGAGCACAAAGATGAATAATAACAATAGGTT
CACAGAAAAGATGAATTGATTGAGAGAAAAAGAACCCTCCAGGAGCCCTCAGCGTAGTAG
GGGGTTGGTGTGGAGGGTTGGAGGAATGGAAAAGGCCCTGAAATGCAGGCAGAGAAAATG
ATGAAACAATTCAAGGGGCTGTGGTGAGGTTAAATGAATATCTTTACAGCAGCCTCGAAGA
CTGATCAGGTTACTATACCCTCTCTTCTGTCCACGTGCATTTT

Sequence 468

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCACAACATTCCCCCTT
CCCCAAACAGTAATATGGACACTGATTTAACAAGACTTATAAAAAATAAGGCACATTTA
TTTTGATATGGTAATTTTAAATAGAAACCCCTTCTCAGAACACCTGTATTCAAATGAGC
TGTGTAAAAAGACACCTTGTGGTACCTAAAATAGGTTTATGGTACCTATGGAATTGCTTC
TATTTTAGTGAAGATGGAATAAATTGCACCCATCCCACATTGTCAAGTAATGAAAATATG
CGGACGCGTGGGTCGAAGCTTGACCTGCCCCG

Sequence 469

GACCTCTTTAAGTGAACTTAGTATGCTAATAGTATGATACGCCCTTTTGCTGTAGCAGT
TACCATAGTTACAGATAAGTATATATTGTTGTGATGATCTGATTTCTGGTTCCCCCACC
CCTGCAAAACAACAACAAAAACCTTTACCAGGCTCTATAACAGGGGGACCAAACCTTGTTT
TTGCTCATCATTGCCGGACGGTGGGTGCGAAGCTTGACCTGCCCCG

Sequence 470

GCTCCCCGCGGTGGCGGCCGCCCCGGGCANGGTTACAAGCTTCGACCCACGCGTCCGGGAA
ATTTTAATTAAAAATAGGTGAACATTTTAAATGACCTAATACATATTTAGTCCACATTGA
AACTTTGGCATTTTGTCAATTGCCATTAAAATTTTGATGGCATTAAAATTTGATGCCATTA
AAATTTTGAT

Sequence 471

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTCAAGCTTCGACCCACGCGT
CCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGCTGGGAGCACAAAGATGAA
TAATAACAATAGGTTACAGAAAAGATGAATTGATTGAGAGAAAAAGAACCCTCCAGGAG
CCCTCAGCGTAGTAGGGGGTTGGTGTGGAGGGTNGGAGGAATGGANAAAGGCCCTGAAA
TGCAGGCAGAGAAATGATGAAACAATTCAAGGGGCTGTGGTGAGGTTAAATGAATATCTT

Sequence 472

ATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACAAGCTTCGACCCACGCGTCCG
GAGCGTTGCTTGGATTTCTAATTACTTCTAAGNGTAGTTTTATTTAATTTCAATCCTTTA
GAAAAANAAATAAANNAATGTGCGGGCCCCGGCTGCCCGGGCAGGTNCCACNCGTT

TABLE 1
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CGAAAAAGAAAGAAAAAACTTTCTCTTTGCCANTTCTTCTTCTTTNTT

Sequence 473

CTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTT
TCCTTTTGAGACACAGTCTCACTCTTGCCAGGTTGGTCTAAACTCCTGGGCTCAAGCA
ATCCTCCCGCTTTCAGCCTCCCAAAGTGCTGGGGTTACAGCCGTGTGCCACTGTGTCTGG
CCCTTTCTTTTCATAGGAGAAGGGTTGTTGACTCCCAGGAAACGTCACCTGGAACCAA
GAATGTGAACTCAAGGACCCCGCCTGTTGGCAGCTGCATTTACTTGACTCCTGTTCACT
GTTTCTTAGCCTTGCTCTTCTCTCCTGCCAGTTCTAGGGGACACTGCTTCTCCTGGTTG
ACCTCATCAATGCCCAACC

Sequence 474

CCGCGGTGGCGGCCGCCGCGGCGAGGTACACAAACCAGATGTATGCAATGATGCCAAAAGT
CATCTCAAATTCGAAGCTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCT
TGAAGATTTACTTTGTATACTTCAAAGATCTGGTCATGAAATTTTAGCTAATACATAA
AGTGCCGAATTGAAATCCAGAATACAATAGCTATGAAGGGCCGCTAGAGTGCAGATAACC
AACCCATTCTACCTAACTCAGGTTGAGATTGCTTTAGAACCTATCATTGGCTTTAAATG
GTCCACAAAAAACACCTCATGGTCACACTTAAATAGTTTGCATCCACACTACAGGCT
TCTCTGGAGGATTTAATACTTTGGAAGTAGCATCATAAG

Sequence 475

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGACCNGTGCAAATATCTACCCA
GTTAGAAGAGTAAATACCATCTTAGTGTTATTATCAAATATTCTGAACTCATGAACCTC
CTCAGACTGTTGCTGGGACTCCCAGATATCAATACTCTGAGAACCACTGATCTAATGTTT
CTTTAGTCAGTTTCTATTTGTTCTCTAGTATAACCAAGCATAAAAGTAATATACTTCCGC
CTCTCTCTCCCCAACTGACTTTAGTCAATAGTACCT

Sequence 476

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAACGCTTCGACCCACGCGTCC
GGTTTGGGTGGAATTATAATTTTAGATAAGATTTAAGAGGATTGCTAGATNGGAATGC
GAATGATGATAAGGCTTTTAGAGTTAGATAAGAGAGAGGGCGCTCTAGAAGTAGTGGNTC

Sequence 477

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCACAACATTCCCCCTTCCC
CAAACAGTAATATGGACACTGATTTAACAAGACTTATAAAAAATAAGGCACATTTATTT
TGATATGGTAATTTTAAATAGAAACCCCTTCTCAGAACACCTGTATTCAAATGAGCTGT
GTAAAAGACACCTTGTGGTACCTAAAATAGGTTTATGGTACCTATGGAATTGCTTCTAT
TTTAGTGAAGATGGAATAAATTGCACCCATCCACATTGTCAAGTAATGAAAATATGCGG
ACGCGTGGGTCTGAAGCTTGACCTGCCCCG

Sequence 478

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCGGCGAGGTACTTATACTAGAA
GATGCTCCAAGGTTTCAGAAAGGAATTAATTACTTTCAATTTGCACAATTTAGAACAAAT
ATCTGGCTTTTCCCTAAGCTTAATGATTTTCCATTTACACAACTAAAATATAATAGCAT
TATTTTATAATCAAGTTTAACTGATGGTCTATGATAGTAGAGCGATTTAGTATTTTGACA
AAAATCTTATGAGACATGAAGTCATTCAATTTGCCGGACGCGTGGGTGCACTCAAGCTAG
ACCTN

Sequence 479

TTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCTTT
CTTTTGTGTTAAGGGCCCATGACCTGCAGTTTCCCTAACATTCATTTTATACAGGGCA
GAGGTATGTGTGCGAGCTCAGATACCTTAAATTCATATGCCTTTAAATACAATCCAGGCAG
ATTTCTAAATGAGGGATGCTTCCCCACAAATGGAGAGTGAAAGTGGGCCAGCCTAAAAGG
ACCTCCATAGCACTGTGCATGGCCAGCTGTTTGTGGCTGTACCTGCCCCG

Sequence 480

ACTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTC
CGCTTCTTTTGTGTTAAGGGCCCATGACCTGCAGTTTCCCTAACATTCATTTTATAC

TABLE 1
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AGGGCAGAGGTATGTGTGCGAGCTCAGATACCTTAAATTCATATGCCTTTAATACAATCC
AGGCAGATTTCTAAATGAGGGATGCTTCCCCACAAATGGAGAGTGAAAGTGGGCCAGCCT
AAAAGGACCTCCATAGCACTGTGCATGGCCAGCTGTTTGTGGCTGTACC

Sequence 481

GACCTCTTTAAGTGAAACTTAGTATGCTAATAGTATGATACGCCCTTTTGCTGTAGCAGT
TACCATAGTTACAGATAAGTATATATTGTTGTGATGATCTGATTTCTGGTTCCCCCACC
CCTGCAAAACAACAACAAAACCTTTACCAGGCTCTATAACAGGGGGACCAAACTTGTTT
TTGCTCATCATTGCCGGACGGTGGGTGGAAGCTTGACCTGCCCCG

Sequence 482

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATTGACTAAAGT
CAGTTGGGGGAGAGAGAGGGCGGAAGTATATTACTTTTATGCTTGGTTATACTAGAGAACA
AATAGAACTGACTAAAGAAACATTAGATCAGTGGTTCTCAGAGTATTGATATCTGGGAG
TCCCAGCAACAGTCTGAGGAGGTTTATGAGTTCAGAATATTTTGATAATAACACTAAGAT
GGTATTTACTCTTCTAACTGGGTAGATATTTGCACTGGT

Sequence 483

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGCAGGTCAAGCTTCGA
CCCACGCGTCCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGCTGGGAGCAC
AAAGATGAATAATAACAATAGGTTACAGAAAAAGATGAATTGATTGAGAGAAAAAGAACC
CTCCAGGAGCCCTCAGCGTAGTAGGGGGTTGGTGTGGAGGGTGGAGGAATGGAAGGC
CCTGAAATGCANGCAGAGAAATGATGAAACAATTGAGGGGCTGTGGTGAGGTTAAATGAA
TATCTTTACAGCAGCCTCGAAGACTGATCAGGTTACTATACCCTCTNTTCTGTCCACGTG
CATTTNAAAAACNTTGGCCGNTCTAGAACTAGTG

Sequence 484

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGATGGTTTTTGCAAAAATTGAAAA
TGCATCGATATTACAGTTAATTTTTTCAGTGTGTATGTGGTATTAGGCTTAGAACTATAA
CACAGGAAGTTTTTAGAGTATGTCCACTCTGGTTTACTCCTTTGTAAGTATTAATACCTG
ATAATTTACATCCTACAGCCCTGCCTTTTTTTTTTTTCAAGTTTGCCCAGCAAGTCTT
GGCCCTTTGCAATTTTCTTAATACATTTTAGTACCTGCCCG

Sequence 485

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTACCTGAAAATGCTTATTCTAGCTT
CACATTTGATTGTTTGGCTAAGAAGAAAATTATTTATTAGACTTAATTTTCTCACGAGT
TTAAAGATTGCTTCAGATCTTAACTTCTAATGAGGAAAGCTGAGAAGTCCAATGCCATT
CTGATTCTTGCAACTTACAAGTAGTCTTTTTTTGTCTAGACGCTTTCAGGACCTTCTTTT
TTCCTCAGTCAGTGTATCCAAACCTTCACAGTGATATCTTTTGGGTACCT

Sequence 486

ACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGCGGCAGGTGGAGGCCCAAG
TGCTGAGACTCAGGGGACGCAGGCCTGAGGACAGTTATGCAGGGTGCAGCGGCCTACGGT
AACCCATGTAGCAACAGAAACCCTTAGCTAACTGCCGTAATTTAAGGCAATTAGGAGCCA
TTCATCATCCAGATGGCTATTGGCTCTAATCGTTACTGGCTGAAGGAACTATATATAGCA
GCTACCTTTCCGCTCCATTCCAGGCCTTGTTCTGTCTTCTGGTTGCCAGTTCTGCACT
CACTCATTCCGGACGCGTGGGTGGAAGACCT

Sequence 487

CTATNGGGCGAATTNTTNTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACGCGTCCGA
TCACTTTTTTCAATTNATACCTTATTAGATAAAACATTAGCCCCCTAGAGTGTTTTGTGAA
GGAAATATGCCTAATAAGAGATGATAGTTTTAGCAATAAATGAGCATTAGAACTATTATT
TATTAATGAAATGAACTGGTGGTCTGAAAGTGATGATAAACAGACAACGTGGAAAAATGA
ATTATTAATTTCCATGGAATTCCTTTTGAAGTTTATGAAGT

Sequence 488

CCGGGCAGGTACAAATCAAGTCATTAACATTTTCAATGTCAAAAATACAGCACGCTGTTA
AGAGTTCTGTCAGTGCTCATTATCCCACTAGATCCCACAAAGGGCAAACTCAAAAGATGA
AACAAAGGCAACGCCATCAATAACCACCATATTCCACAGGCTTCTCCCTAGGACGTAC

TABLE 1
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CTN**Sequence 489**

CCGCGGTGGCGGCCGCCGGGCAGGTGGAAAGGTGGGTGGGGAGAGGGAGGCTTATTTGT
TGCTGCAGTGTAAGTAACTAAGTAAACCTAATTCATATGACTCAAAGTATATTTGGTT
AGATCTAGGTGAGTTCTACTTTAGAGGAAATCCTGGTAACTGTTGTTTGTGTAAGTTA
TAGCTGTAATTAATTTTCCCTGTATTCAAAGCCCCAAACCCTGCATTGAGATACTATGC
ATTTAGACTTCCTTAGGCAAAGTCAAGGCAACAAGCTGATGATTCTAAAGCTATTNTTCA
AGGGAGNTNTTTACCCATCATAAAGGNGGTTTTAGTCATTATAGATAATATTCAATCAA
TTANTACCGGGGGATGGCAAAA

Sequence 490

CCGCGGTGGCGGCCGAGGTGTAATTTGGAGAATATTTAAAGCAAAAGAGCAAACAACAAA
AACTAAGTTAACACTTACCCAGTGCAGTAAGGGAATTGTAAGATACAGCCTGCTTAAGGA
GGTCTGCAGACAGATGCACCTAAGATTTAGCTGTTTTAGGTCACTTTTCTCAAAATATT
TATTATCTGGCAATGGGGATGGGAGTGGGGAACACCTNTCTGTGAGGCAAATGGTATCTC
AACAAATACCGACTTTTCAAGGAAGAAAGCTCTCCACTTCTCTCATAAACTTATATACTA
CCTTAAACAGTATGCAGTATTCGCGGACGCGTGGGTGCAAGCTTGACCTGCCCCGGGCGGC
CCGCTCTAGAACTAGGTG

Sequence 491

CCGGGCAGGTACAGCCTCACATACACAGATGCAGGTGAAGTCACCAAAGCTGATCTCTCA
TTCGTTCTGGGGACAGTTAGCAGCGTAGTGGTCCCACTGCAGCAAAAGTTTGAAATTCAT
TTTCTTCAGGAAAATACCCAGCCAGTCCCTCTCAGTGGAAACCCTGGTTATGTCGTGGGG
CTCCCATTAGCTGCTGGATTCCAGCCTCATAAGGGTGGAGCTCTCCCGTGTGAGCTCGTA
GCACAGAAGGTGAAGAGCCTGCTGTGGGGGCCAGTGCTTCCAGATTACGTGGCCCCTTTT
GGAAATCCCAGGCCCAGGGACATGCTGGACTGGGTGCCCATCCACTTNATACCCAGTC
ATTCACAGGGA

Sequence 492

CCGCGGTGGCGGCCGAGGTACTATTGACTAAAGTCAGNTGGGGGAGAGAGAGGCGGAAGT
ATATTACTTTTATGCTTGGTTATACTAGAGAACAATAGAACTGACTAAAGAAACATTA
NATCAGTGGNTCTCAGAGTATTGATATCTGGGAGTCCCAGCAACAGTCTGAGGAGGTTCA
TGAGTTCAGAATATTTTGATAATAACACTAANATGGTATTTACTCTTCTAACTGGGTAGA
TATTTGCACTGGT

Sequence 493

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAGA
ACATCTTGATTTACAAGGGACAAAATGATGCAAATTATATGCTGTCCAACCTACTGGTGA
ACTGGATCAGAATGGTCCAAGGACTGTTAAACAGAGGAAGTATTTACATTTTGAAAACCT
GCGGACGCGTGGGTGCAAGCTTGACACCT

Sequence 494

CCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAGAACATCTTGATTTACAAGGGACAAAA
TGATGCAAATTATATGCTGTCCAACCTACTGGTGAACCTGGATCAGAATGGTCCAAGGACT
GTTAAACAGAGGAAGTATTTACATTTTGAAAACCTTGCGGACGCGTGGGTGCAAGCTTGTA
CACCT

Sequence 495

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCCTAAAA
CTTAAAGTATAATAAAAAAAGATTATTTCTATACTTCAAAATCAACAAGATTTGATTG
CATTTAAATTTTTCTGTCCATTTGTTCTTCTATGTAATACTTTAAAAATAATTGGCATAA
AAATTCAATCAATTCAAAAAGTCCAAAGCAAAAAAACAATCTACTGACATNTCTTGA
GGAAGAAATGATCAGGATTGACATTAATGAACCCTCTCACAGAGACCACTACACACACAC
ACAAAAAGAAGGATGGGTGAATGGATGCAGAGAGAATTTAATAAGACTGAAATGATGCCA
TACATGCTTTTAAAAAATAAAAAGTATTAATTTTAAATTTTACTTCAATATAAGAGAAA
AAAAAAA

Sequence 496

TABLE 1
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CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCTTCGA
CCCACGCGTCCGTAGTAATAGGGAATTAAGTACCCCTTTTGGATGGGGGAGAGCATCAG
GCTGGGGTCAGGTAAGTGTAATGGCCTTCTGAGCATGCTCTTCTAGGCTGACTCCCAGC
CCTGACTTGAACCATTAGCGCTAAGTCTGCTCTGTTTTGAGAAAACTTTCCAACTTTT
GCATGAGAACTAGAAAAAGGAATGTATGCCACGTAAGTGGATTACAGAAATGAGTTAAT
TGTCTCTGTGATAAAAAAATGAAATATTTTCTTATTGAATTAATATTTTGTCTTGA
AGCATTTTCTAGTGATAGAATGTATTTGTCTTTTTCTTGGGGGNACCTCGGCCGCTCT
AGAAGTAGTG

Sequence 497

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCCCGAGGTC
AGCACTTTGAACACTTGAACATCTATGAAATCACATAGTAAAGTGATAGGAGATGGGGCT
AAGCTTTTAATGGCCTTTAGACATAGCATTAGACATAACCTAAGCTGAAAGGCTTTGGGA
AGTTGTTGTGTTAAATCCCAACACACTCTCGTGTTTTCTTAGGACTTGCCTNTTATTTA
AAAAAAAAAAAAAAAAAGTTGCGGCCGCTCTAGAACTAGTTGGATCCCCCGGGCTTGCAG
GN

Sequence 498

CCGCGGTGGCGGCCGAGGTACCCTTTTATAAGGGTGTATCCCCTTTTGGTAACTTACTGT
TTGTTAATTTGTAGTGTTCCCTGCCAGTAAGCTTGAACACTCTAGTGACTCACCTTCGG
GTGGGAGGGTAGGAAAGGGAGAGGCCTGCCTCCTAAACCTGGGAAGATGGGGAGAGAGTG
GTAAACCTGAGAGCCCAAAAAACAAACCAAAACAAAAAAGT

Sequence 499

AGGTACCCAAAAGATATCACTGTGAAGGTTTGGATACACTGACTGAGGAAAAAGAAGGT
CCTGAAAGCGTCTAGACAAAAAAGACTACTTGTAAAGTTGCAAGAATCAGAATGGCATTG
GACTTCTCAGCTTTCTCATTAGAAGTTTAAGATCTGAAGCAATCTTAAACTCGTGAGG
AAATTAAGTCTAATAAATAATTTCTTCTTAGCCAAACAATCAAATGTGAAGCTAGAAT
AAGCATTTTCAGGTAAAAAAAAAAAAAAAAAAGT

Sequence 500

CCGCGGTGGCGGCCGAGGTACTATTGACTAAAGTCAGTTGGGGGAGAGAGAGGCGGAAGT
ATATTACTTTTATGCTTGGTTATACTAGAGAACAAATAGAACTGACTAAAGAAACATTA
GATCAGTGGTTCTCAGAGTATTGATATCTGGGAGTCCCAGCAACAGTCTGAGGAGGTTCA
TGAGTTCAGAAATATTTTGATAATAACACTAAGATGGTATTTACTCTTCTAACTGGGTAGA
TATTTGCACTGGT

Sequence 501

CCGCGGTGGCGGCCGCCCGGGCAGGTGAGGAGTGTCCCAAAGATTTCCCAAGTCCAGCCC
AGAGAAGCTGAAAGCCTTTCCCCAGGTGTGGGGCTGAGTTAGATGTGGGTGATAAAGGA
TGTGGCCTCGAGGCTGGGAGGCAGCTGGGCAAGTGGAAGCCTCCCTACTCCTGAGACA
GTGATGGCTCAAATCCAGGCCAACCTGGAACATGATCCTCAACTTCTCTAAGTTCACCTT
TCCCAGGTGTGAAATGGGTTGTTCTGGGAATTGAGTGAGCTAATGATACACTCCCTGGCA
CACAGCGAGCCTNAAAACGCTTGTGTCCCCTCCCTACCTCACAGCCCATTTTAGAAGTTT
GCTGTCACTTA

Sequence 502

GACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTTTTCTTA
TGAGTGGGAGGTGACTGATCGTGGAGGTGGATTTCTTATGAGTGGGAGGTGACTGATCGT
GGAGGTGGATTTCTTATGAGTGGGAGGTGACTGATCGTGGAGGTGGATTTCTTATGATTG
GCTTATCACCATCCCTCCTTGGTGCTGTTTTGCAACAGTGAGTGATTTCTTGTGAGATC
CGGTTGTTTAAATCCANAGGCACCTNCCCCTACCCTCTAGCTCCCATTCCTGCCATGTAA
GACACCTGCTCCCCCTTTTCTTACCCCATGATTGGAAGCTTTTGGAGGCCTCCCCAGA
AGCTGATGCCAGCCCTATGCTTCCTGCACAGCCTG

Sequence 503

CTACTATAGGGCGATTGGAGCTCNCGCGGTGGCGGCCGAGGTTTTTGAATGCACGTGG
ACACGAAGAGAGGGTATAGTAACCTGATCAGTCTTCGAGGCTGCTGTAAAGATATTCATT

TABLE 1
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TAACCTCACCACAGCCCCTGAATTGTTTCATCATTTCTCTGCCTGCATTTTCAGGGCCCTTT
TCCATTCTCCACCCTCCAACACCAACCCCCTACTACGCTGAGGGCTCCTGGAGGGTTCT
TTTTCTCTCAATCAATTCATCTTTCTGTGAACCTATTGTTATTATTCATCTTTGTGCTC
CCAGCATGTAATACAATGCCTGGCACTTAGGAGAAGTTATCACGGACGCGTGGGTCGAAG
CTTGACCTGCCCCGGGCGGC

Sequence 504

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGCTTCGACCCACGCGTC
CGAAATTCTTGGTTAAGGATTATTATAAAATAGAATGGTATTTTCAGTAAATCCCTGAGGC
TTAGGAGTCCAGGTACAATGTTGGTTCTCAATTAATAATATAAATCATGTCTAGGGACACT
TAGGAACACAGAACATATATTTAGAGCTAGAAAATATACAGCTTCAGACCAGGCAAAGTG
CTGGGATTACAGGCGTGAGCCACCACGCTCGTCCCTCACATGGGGTTTTATTATTAGGATG
GTAAGAGTATTATAAGGGATTNGGTACAAGGCATAATGAGTCCTTTTGCTTTTAGGCTT
TTGACTTNTGGTTTTAAGACTTTTNTTTAGCTTTTGTNGTTAGACANCCATTGGGCA
AGGCTTNGGTTTTTAATAAAGTTTGCTTGGGATNAAACNTGACCTAATGGAAATTGTC
CCCTNCCCCCAAAA

Sequence 505

CCGCGGTGGCGGCCGCCGCGGCAGGTACTACTGATACAAATAGCATGGATGAAACTCAAA
ATCATTATTCTAAGAGCCAGATACTATAGCCTGTATTTTATGATTCACTTTCAATGAAAT
TCTACAATAGACAGAACTATCTATCAACAGAAAGCAGATCAGTGGTTTTCTGCAGCCAGA
GGTATGAAAGGTTTGAAACATGTGGCACCAGTAGGACATATGGAAACTTTTTTGGTGTGA
TGGAAGTATTTTTTATCTTGATTGTGTGGTGTGTTGTTATACAGTGGTATACATTTGACC
T

Sequence 506

GGGGCGGCCGCCCGTTTCAGGTACACGTNTTNNCCAACCAATTTTATANGNATATATATAT
TCTACTTCCAACACCCNTNTTCATCCTGGTNCAATCAAAGCCTGGTTNTGGCCAACAANA
AACTCGTCAGGAGATCGAAGGNTGTAGATGTCTGCACGTGGCTTCCTTGAGGTCAGNG
GNGACTCCCTCTTCCAAAATCCATTCTGTACCCGCTGGCTGCTCTAACGGGCAGGACAAC
AGCGTATGAAGCCTGACTGCAACTAGGAGAAGTACCACACTCCCGGACGCGTGGGTCGAA
GCTTGTACACCT

Sequence 507

GGCCGAGGNCAAGCTTTTACCCACGCGTTTGAANCCATCTGTTTGGNACCCNGAAAGGGG
GCAGGAAAGGCTGGGGTCCCAGNCCACCCTAAGGGNATCTGAGTGGCCAGGGCTNCAAG
NNNNCCACCTGNCCAATGGGACCCTTTCTGNCTCACCCTACAAGGGGCACAAAGGGAA
GACACCAAACCTGGCAGGAACTTTTACGCAATCAAGGGAAGGAAAGGCANTCCTGGCAG
AGGGAACAGCANGCCAAGCGGGAGAAGGCTCAAAGTAAGGAGGGTAAG

Sequence 508

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGCTTTTCAATTTTATTGTAT
AGTTTTTGATAATGTTAATGTCTGAGATCTTTATGGGTGAGTCTGCTGTCATTTCTGCTA
TTTCTCGTAGTGATTTGCTTGATGGTTTATGATTTTTTAAAACTGAATGTGTATTAGA
ATTGTGTCTGGTAATTCTTTAGGGACCCATTGTAGATGATTTCTTCAAAGAGCATTGT
GGTTATTATATTTGGGTGCTTGGGGCACTGCCAGTACCTGCCCG

Sequence 509

CCGCGGTGGCGGCCGAGGTATTGAACCAGGTCAAACATTGTTGAATATCAAACCCAATC
TATTTAATCTGTAAGAAACAAGGACCCTGAGAAAGATTCTGACCAAGGGTATGTGATCGG
AACTTGACAGATAAATGTAGTATACTTGTAAGCCATACTGTGAAAACTTGGGGATTA
TTTGAACACAAATTATCACCTGGAAAAAGACAGAAAAACAAGGCAGAAGACTGTGCAAAGA
GGTTGGAATATTCAAAACCTTCAGATTAGAAG

Sequence 510

CCGCGGTGGCGGCCGAGGTACCCAANNGATATCACTGTGAAGGTTTGGATACACTGACTG
AGGAAAAAAGAAGGTCCTGAAAGCGTCTAGACAAAAAAGACTACTTGTAAGTTGCAAGA
ATCAGAATGGCATTGGACTTCTCAGCTTTCCTCATTAGAAGTTTAAGATCTGAAGCAATC

TABLE 1
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TTTAAACTCGTGAGGAAAATTAAGTCTAATAATAATTTTCTTCTTAGCCAAACAATCAA
ATGTGAAGCTAGAATAAGCATTTTCAGGTAAAAAAAAAAAAAAAAAAAAAGT

Sequence 511

CCGCGGTGGCGGCCGCGACCGCTTGCCGCCCGGGCAGGTCAAGCTTCGACCCACGCG
TCCGAAATTAATGAAATGTTTTACATTCTTTTAAAAACCTTTGAAATATGGTGTGTATTT
TATGCTTTAGCAAATCTCAGTTTGGACCATTTTCAGGTGGTCAGCAATTACACATGGCTAG
AACTAAGAGCAATCAGTTTTNTTCCACAGTTTTTCTAAAATTTTCTTGTCAAAAATCTTG
ATGGTATGAATTACTCTTTTAAAAAGTGCACCTNACCAGCAACAGAAAANAACCCTGGAG
GGGTATGGGTTTTAAAGCTGGTACCTNGGCCGNTCTAGAACTAGGTG

Sequence 512

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTCCCAAAGTGCTGGAATCA
CAGGAATGAGCCACCACACCCAGCCAAATTGGGCACAAATTTAAAATTTGACTTTTATTA
ATGATATGGTAAAGAGATCTAGCTTGGTCATGACACCCTTGTTTATACGGTGACAGGCA
AATCATTTAAAAATATCTAACTATAATTTCTGTAGTTCACATGAATTGGATATTCTGA
AGCGGACGCGTGGGTGCACTTGTAACTGCCCCGGGCGGCN

Sequence 513

CCGCGGTGGCGGCCGCGGCCGAGGTACAGAAAGGACAAATACATCAGTAGAAAAGAAGA
CAATATAAGGGCAGATTGAAATATATACGTGAACGTCACAAAGACCAATTACTGCCATTT
CAATTCAATGAGGAAAATAATGATGTATTTAATAAATAGTGCTAGAATGCTGCATTATCTG
TCTAGGATGAAAAAAAAAAAAAAAAAAAAAGT

Sequence 514

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTCACTATAGGGATCT
AGATCACGAGCGGCCGCGCCGCACTTTTTTTTTTTTTTTTTTTTCTGCCACCTCTTTC
ACTTGGGAATCTATTTTCACTGCTCTCAAAGTTTTGAGAAGGCAATAGTCCTGGAAAAT
GGGTCTGAGCTCCTCTCAGCAGTCCTGCTTCTTCCACCTGCACTGTAAGGNGACCCCT
AACTGGGTCTAAGACAAAAAGTCGACGCGTGGGTGCAAGCTTGACACCTT

Sequence 515

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTTAGTTACCACTTCA
TACTGGAGGGCACTGTCAAAACTTCTGACTATCCAGACTTGAAGCTGGAAGCAAATAC
AAGTCTGAGGGGCTCTAAGCTGGGAGGTTCTGGCCTCTCCCTAGCTCTCTATGGCTCTAC
CTCTCTGCTTGAAGCTCCCTGCACTGCACTCCCATTAATCTGACTGGGGATAGGACCACT
GCTGACAGGGCCCCACCTCAACTTCTTTCATTGCCCTCTTCCAGGAAATCCCACCCTGGG
ATACTTCAAAGACCTCATATGCTACAAAGATCAAGGCCACCTAATGAGTGCTCTAGAGAT
CAGCACCAAAGATGCTTGCCAGAGTCTTCTCTA

Sequence 516

ACACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCAC
GCGTCCGGGGAACCCCTTGTTCAAGTTCTTTTAGGCAACCCAAGCCAAGACAACAAAGTA
AGATAGAGCCCCAAATGTGGTCGTATAAGGTTTTTCAAAGAAAGTAACACTTGAGTTAGG
TCTTAAAGTTTACCTAAGAACTGCCAGGTGGACAAGAAGAAAGGGTGTCCAAGTAG
AAATAATANCATGGACAAAGGCAATGTAGCAGGAAAAGTNTTCGTAAATTCAGGGGAATTT
CAAGTGTTCACGATGGAAGGAGCAATAGAGTCATTTACTTGCGGTGGCAGGGGATGTTG
GAAATGTAAACAAGAGTGAGATACAGAAGATTTTATGTGGCATGCCAACTGGGACTTTTT
TTTGTAACAA

Sequence 517

TCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGAGAAATACCATTTGCACA
GTCAATCACTTCTGACCAAGCTTATCAGAAAAAGGAGAAAAAGAAATGTCTCCCCACTAAAT
GTTCTAGGGNGGGNGAGGAAANCTAGGGTGGNTATCTAAATCAACAAATATTCTAGATAT
TCCAATATCTAAATFATTGTTGGAAATACTCNTCCTGAAGNGNTCATTTGAACNCTAAAG
CAGGAGNACAGCNTTTGTTGTATCAANATGGGCAGGGGTTTTTAAAGGGTNTCCATTTTT
TNTTANTTTCCNCATTATTAAATTCNTTNTAAATNNTTTTTAGGACCAAAAATTTTTCC
CNTTCTTNGAGGTNTTTAAAGGGGGATTTAANAAATGGGNNANNTGGGGGGTTT

TABLE 1

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Sequence 518

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGGTAGAGAAAGATTCAA
AATGCTGCTGTTCTACCTGAGATGGGAAAAATGAAAGCAAAATAACATCAACAAAAACAA
ACAAACAGCCTTGTAGTTCCATGTCACTAGCCAGGGATTTAAGACCAGCCTAGAGAACAT
GGTGAGACCCCTTCTCTACAAAAATAAAAAATAAAAAATACAAAAAAGCTGGACATGGTGG
TGTGTACCTGCCCCG

Sequence 519

ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATGCTTCGACCCACGCGTCCGCTCACT
TCATCCTCCCAGCAACCTATTATGATCCATTGCCACACCAACTTGCTGATGAGGAAAGTG
GGGCTTAAGGAAATTAAGAGCTGTTGTGGGACTTCCAAAGCAGAAGACAGTAGGCTTTC
AGAAATTTGATAAAAAATAGCACTTTGCATTTNTTGAATCTTGAGCTAAATGGAAATTAAT
ACTAAACATTCTNCACTGGTAAAATAGAGAATAAGGATATTAACAGTAAAAGAAAAGAAG
AAGAAAAGGAAATGTGCTTCCACAGATTTAGAAACATAAGTAACAATCTAAGGTTAAGGC
TTTTGGCACCTGCCCGGGCGGCCCGCTCTAGAACTAGTGGGAT

Sequence 520

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCTTCGACC
CACGCGTCCGAGCTATGGACCTAAGGCAGCGAGTGGATTCAATAGTCCTCTTTCAGCTGA
ATGCATGCTACAGTATAAGAAAAAGCTGCTGCCTATATGAAGTCTTTGAGAAAGTTTG
TAGCTGCTGTTAATATTTAAATCAGAGGAAACATCAGGAGTCATTCTAGAGAATGGCAA
GAGTTTTCTGCAGTTTATATTGTTGACTTTTTATACGATATTGGGGTACCTCGGCCGCT
CTAGAACTAGT

Sequence 521

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTCGACCCACGCGTCCCG
TAGGAACTATGTTAAAAAAATTCAGAAAGAATTTAAGGGAGATTACAGTGTTACTGTG
ACACCAGGAAAACCTTAGAACTTTGTGTGAAATAAGACTGGCCAGCATTAGAGGTGGGTTG
GCCATCAGAAGGAAGCCTGGACAGGTCCCTTGTTCAAAGGTATGACACAAGGTAACCCG
TAAGCCAAGGCACCCAGACCAGTTTCCATACATAGAACCTGCCCG

Sequence 522

CGACTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTT
TTTTAAGTAAAGAAGGTTTTATAATATAGTGAAAACAATACGGAGATGAAAACCAGGAGA
CCTGGGTCCCGCCTTTGTTACAAATGCCTTTCCTAAAAGCTCCAGAATGGTGCGAGGTCA
AAACAGATGGGCAGAAAGGAAGTGGTCATCAGAGCAAGAGAAAGAGCAGGTGCCAGGCAC
TCACGTGTGCGGTATATCAGGTAGAGATGATGAGTAGAGATCTGCCCTAGAAGACACTG
AATTCTGAGATTCAAAGGGGAAAAGTTGATTTTATAGCCAGTGATTTTATAGCCCACTTT
CCTGCCCCACCCCTACTNTAAGAATTGCGGACGCGTGGGTGCAAGCTTGACCTGCCCG

Sequence 523

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCCCAGAATA
ACTAAATAAATAAAAGGCTAAAGAAAACCTGGAACAGTACTGCGTCTCCATCTGAGACGCA
NTCTTCTACTTCCAGCATCGNAGAGAAGGGCTAGGGACAATTTTTTTTCAAAGATTTAT
ATACAGGCTTGAATCCAGAAATTAAGGNTAAAAGCATAAATATTGATAATTTCAACTAAA
TTCAGAATGGNTTCAGAAAGATATGATACAACAATTTAGAATAAAACAAAGCAGAAGAGC
ATNATATTTTGGCGACGCGTGGGTGCAAGACCT

Sequence 524

CCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCACGCGTCCGCTTAAAAGATTTTTTT
TTTATGTAAACTGTTGAATATTTGAAATAGTCCACTTCACCTTAATGGGTCTTGTCTATC
TTCATTAGTCTTCAAAGAAAAACCATTTGCTACCAAAGTAAATCAGTATTTTGAATGTGC
TTCTCTTGTTTTTTGTATTAGCTAGTTCCTGTAAGCATTTCACCAGAACTTGAGGCA
AATCGTAAGGAAGCTGTTTCTTTTAAAACACAAACCACCACCAAAAAATTTAAATGTACCT
GCCCG

Sequence 525

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTCAAGACCCGCCTGGC

TABLE 1

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CAACATGGTGAAACCCCATCTCTACTAAAAATATAAAAAATCAGCCGGGCATGGTGGCATG
TGCCTGTAATCCCAGCTACTCAGGAGTCTGAGGGAGGAGAATCACTTGAACCTGGAGGCA
GAGGTTGCAGTGAGTCGAGGTTGCGCTACTGCACTCCAGCCTGGACAACAGAGGGAGACT
CTGTCTCAAAAAAAAAAACCTACAGCTGTTCAAGGACCAGCTGACAGGTCAAGTGTGGCC
TTTTCTGGTCTTTGAACACATCATAGAAAGTGACAAATGCTGCAAAGCCATGAAGAACAT
GAACTATAAACGGGTAGACTAACTGCCAGCTTAGACACTTATCTATGCCACAAAACAGC
TGAATT

Sequence 526

CCGCGGTGGCGGCCGAGGTACCAAACCCGGCTTTTTTCGAAATACCTGCAAAAAAAGT
GGATGATTCCAAATCCAACCTGAAGTGTCTGCTCTCTCTCCAATTCAGAACAACCAGAAG
GCCTGTCTTGAATTAGGTAATGCATTAAAGAAAAGTAGGATTATTATATTCCAATTTCTT
CCATCAGATGTAAACATTATTGGTAGATCACATCTGTTTTAATAAATCTGTAAGAAAGA
CGTGTAATTATAATTATGTTACCATTGTATGTAAATGGCATTTTAACAAGACATATTAAT
ACATTTTTATAGAGTACCTGCCCG

Sequence 527

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGT
CCGGTTAATTTGGGAGAAGGAAGAGAGAGTGACATATTTGGCTACCTTCAGGGAACAAAA
TCTAACAGCACAGATGGTAGTAGAGGAGATACCAATTTACATATTAAGGAGCTAGAGTTG
ATGATGGTATGACTCAGCCCTCTGAGATTAATTTCTACTTACTAGGGCTATGAATGGAGA
TAAGTAGGTATCCCACCTTTTATTAGAAGGTTCTTAAAATAAATATGGGACTCTGGTCA
GAGAGTAGGGCCATTAATTTGCTCCTGGTTTTTACCTGGCATCCACCCACCAGTACCTGC
CCGGGGGGCGGNCGGCCCCGCCCGGGCAGGTCCCGCACTTTTTTTTTTTTTTTTCTTT

Sequence 528

CCGCGGTGGCGGCCGCCCCGGGCAGGTATTGCCCTTTGATGTCCCCATGAGGGCCAGGCCC
AGGCAGAACCCATCCCATTTTATCCTTAAACTCAGAAGGAAATTTGTCTAAATATTAAAG
GATTAATATGGGGAATAAAAAATGAACCTTAAACCCCTGCCACTGATACACAAGCTGTCTC
TCTTAGAGTTCAATGAACACTTCAGGAGAGTATTTCCAACAATATTTAGATATTGGAATA
TCTAAATATTGTTGATTAGATAACCCACCTAGATTTCTCACCACCCTAGAACATTTAGT
GGGAGACATTCTTTTCTCCTTTTTCTGATAACTTGGTCAGAAGTGATTGACTGTGCAAA
TGGTATTTCTCAGCTAAAATCTCCCTTATGAACCCTTCTCGAAATCC

Sequence 529

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCCATTTCCCTGAAACA
AGCAGCCAGCAACTATCTCAGAAATGTGTCATTTTTACTGGTTATAATTCTTAAAAAGCT
TGTTTTCTAAGATATGAAATGCCTGCCAGTATACAACTGTTGTAACCTACTTCCCTTTT
TGCTTTTAGCGGGGAAAAAATAGCTTAATGACAGCATAGAATCATGTAGTAAATATAATT
CATTTTTTGAAAGGTTGAGCTATATCCTCTTCCATTTGTTTATTTTAAATGATCTAATTG
CAAACATGTCATCACTCCCTTGATGTTTACCTCCTTGTTATGCATTTTATGACAGGCTTTA
TTGTCACCTGAGATTTTTTTTTCTTTGACAGGCCGGAGTCTAGATGAAGGAAAATGTGT
TAGAAGCACCTTATCCACAGATGGGG

Sequence 530

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGTAGCAGAGCAGCTCCCTC
GCTGCGATCTATTGAAAAGCTTGAGTCGACCCACGCGTCCGCTGCATAAAAGTTATGCAA
AAAGCATTTTATGATATACCAGCAAAAAACATGGAAAATGAAATTTTAAAAGCAATGCC
ACTTCAAAGATCCCTCAAGTGCCTAGAGGGAGAAAATGAGTTAATATGCTTTGAAGAACT
GTATCCAGAAAATAAAATTACAAAGGAGGAGAGGGATAGGATTCCAGGACAATCTCAAAA
CTATTGCTTTTTCTTAAATTCATTGCAACCTTAAAATCCTAGCAAGTTCTTTAATGTAAA
TTAACAAGCTAATTCTAGAATTCATATGCATATTCAAAAGTCGAATAATTGTCAAGGCTA
TCCTGTAGAATGGGACAGAGAGGATTGAAATTT

Sequence 531

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAATCCCGTCTTAC

TABLE 1
88/467

AGAAGAGAAAAGTGAAGTTAGCAACATAAAAGTATTTCCCGTAAGTAAACAGTAGAGCC
AAGATCTTGACCTACGCCATCTGATACCCCTGAGCCCATGCTATAAAAGAGGAGCATTAGA
AATATTTGAAAGATAGAAATGAGAACTAGTCAATATTTATTTTGCTTAGCACTGTATTCA
GTATTATGGCATCTTAAAGTAGTTAAGACTCAATATTTTCATCAAAAAAGTTTAAATCTA
ATCAGAGAAT

Sequence 532

CGCTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAATAAGCCCACCC
CACTAGGAACTATGTTAAAAAAAATTCAAGAAAGAATTTAAGGGAGATTACAGTGTTAC
TGTGACACCAGGAAAAGCTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGGG
TTGGCCATCAGAAGGAAGCCTGGACAGGTCCCTTGTTCAAAGGTATGACACAAGGTAAC
CCGTAAGCCAAGGCACCCAGACCAGTTTCCATACATAGAAAGTTACAGCTGCTTTTATAC
CCCTTGCCCCGCCAACGTAGT

Sequence 533

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGCGACTTTTT
TTTTTTTTGTAGAGACAGGATCTCCTTATGTTGCCCAGGCTAGACTTGAACCTCTGGGC
TCAAGGGATCCTCCTGCCTTGGCCTCCAAAAGTGCTGGGATTATAGGTGTAAACCAGTGT
GCCTAGCCTACAGTTTTTTAATTTTATAAAATGTTATTTCTAATTTTTCTCCAAAAGTAA
AAGTGGCATTCCAATGGCAATATTAATTGAGGTATCCAGAACTCTTAACCTAAATTTGGG
TGAGATGAGGAAAAGTGATTGTTAATTTTATGTGTCAACTT

Sequence 534

CTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTCTTCGACCC
ACGCGTCCGTAGTAATAGGAATTAAGTACCCCTTTTGGATGGGGGAGAGCATCAGGCTG
GGGTCAGGTAAGTGTAATGGCCTTCTGAGCATGCTCTTCTAGGCTGACTCCCAGCCCTG
ACTTGAAACCATTAGCGCTAAGTGTCTGTTTTGAGAAAACTTTCCAACTTTTGCAT
GAGAACTAGAAAAAGGAATGTATGCCACGTAAGTGGATTACAGAAATGAGTTAATTGTC
TCTGTGATAAAAAAAAAAATGAAATATTTTCTTATTGAATTAATTTTTGTCTTGAA
GCATTTTCTAGTGATAGAATGTATTTGTCTTTTTCTGGTGGTACCT

Sequence 535

CCGCGGTGGCGGCCGCCCGGGCAGGTGTCCCATGAGGGCCACGGCCCAGGCAGAACCCA
TCCCATTTTATCCTTAAACTCAGAAGGAAATTTGTCTAAATATTAAGGATTAATATGGG
AATAAAAAATGAACCTTAA

Sequence 536

GAANTGGAGCTCCCCGCGGTGGCGGCCGAGGTCCAGTAGATTTGGAGAGTAATACAAATC
CTTTCTTTCTGGTTAGAACACACTGCCAAAAGCCACCTCTTTCATCTAAGGAAAAGATTA
AAAATGCATGTTGATATCTCCTAACTATCACACAACCTCCACTATTACAATGAAAAATCT
GGTCCCCTTTTATTGCCTTTGAAAACCNTTTTGCCGAGGTGGNTTCAAAAAACNCNGN
ANTTTTAAAAANTTGGNTTTGGTTTTACCNGGGGAAAGGGGACNTTTNCCNNTTTTTTT
TTTTTTTTTTTTTTTTNAAANGGNGATTNNGGTTNNGGTTNTNCCTGGGGCCAAAATNCC
NTTTGNGGAACCTTTTTTGGGGTCCNAAAANNACAAAANAAAGGNTTGGGACNATNT
TTTTGNATNCNCNCNAAAAAAATTTTTTTTTT

Sequence 537

ACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTTCGACCCACGCGTCCGCTA
GGAAGTATGTTAAAAAAAATTCAAGAAAGAATTTAAGGGAGATTACAGTGTTACTGTGAC
ACCAGGAAAAGCTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGGGTTGGCC
ATCAGAAGGAAGCCTGGACAGGTCCCTTGTTCAAAGGTATGACACAAGGTAACCCGTAA
GCCAAGGCACCCAGACCAGTTTCCATACATAGAACCTGCCCG

Sequence 538

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCG
ACCCACGCGTCCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGCTGGGAGCA
CAAAGATGAATAATAACAATAGGTTACAGAAAAGATGAATTGATTGAGAGAAAAAGAAC
CCTCCAGGAGCCCTCAGCGTAGTAGGGGGTTGGTGTGGAGNGGTGGGAGGGAATGGAAA

TABLE 1
89/467

AGGCCCTGA

Sequence 539

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGACAAGCTTCGACCCACGCGTCCGCAAGT
TTTCAAAATGTAAATACTTCCTCTGTTTAAACAGTCCTTGGACCATTCTGATCCAGTTCAC
CAGTAGGTTGGACAGCATATAATTTGCATCATTTTGTCCCTTGTAATCAAGATGTTCTG
CAGATTATTCCTTTAA

Sequence 540

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCCATTTCCCTGAAAC
AAGCAGCCAGCAACTATCTCAGAAATGTGTCAATTTTTACTGGTTATAATTCTTAAAAAGC
TTGTTTTCTAAGATATGAAATGCCTGCCAGTATACAACTGTTGTAAGTACTTCCCTTT
TTGCTTTTAGCGGGGAAAAAATAGCTTAATGACAGCATAGAATCATGTAGTAAATATAAT
TCATTTTTTGAAGGTTTCAGCTATATCCTCTTCCATTTGTTTATTTTAAATGATCTAATT
GCAAACATGTCATCACTCCCTT

Sequence 541

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATTGGA
TTGTTAAAAAGAGGAGTCTAGAAAAATTAATCCTGAACCCTAAAGAATAAATCTTAAGTGG
TGGATACATGGGTTGAATAGTGTGCTCCAAAATTCACATCCACTTGAACTTCAGAGAGT
GGCCATATTTGTAAATAAGGTATTTGCGGGTGTAAATCAGTTAAGGATCTCAAGATAAATT
CATCCTGAATTATAAGTTGTCCTTAAATCCAATTACTGGTATCCTTACAAGAAGGTGAGA
GGAGACAGAATAGAGCCATCTGAAAAGGGTCAGAAA

Sequence 542

CTAACACTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGAC
CCACGCGTCCGCAAAATCAATCAAGGGTTCCTACTCAAGTAAAAAGCAACTTGTAGGAA
AATAATAGGGGATATATTTTGCTCATTAAAGGATCTTTTTATAGTGGCTCTTGGTGCCTG
CCTGTGAGTTAGCCCTTATCCTCAAGGAGCAGCTTAAAAAAAAAAAAAAAAAANGT

Sequence 543

CTACTATAGGGCGATTGGANCCTCCCCGCGGTGGCGGCCGAGGTACTTCCTGGAAATCAA
TTAACTGAGTCTTTTGAACCCCTAGAGAAGATAGGAGAAAATTGGTTCAGANCGAGCAT
TTAAATTAAGTCAGCAAAGTCAGAAATTTAAATTGGGCAATTCCTTGTCTACATTTTCTT
TACACTCAA

Sequence 544

CTNACTATAGGGCGANTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGCCAAAGCC
TTAACTTAGATCGTTACTNATGTTTCTAAATCANGTGGAAGCACATTTCTTTTCTTCTT
CTTTTCTTTTACTGNNAATATCCTNATTCTNTATTTTACCAGTGGNGAATGTTTAGAATT
AATTTCCATTTAGCTCAAGATTCAAGAAATGCAAAGTGCTATTTTTATCAAATTTCTGAA
AGCCTACTGTCTTCTGCTTTGGAAGTCCCACAACAGCTCTTTAATTTCTTAAGCC

Sequence 545

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATCACACAGAAGGAGG
AGGGAGCTAATCCAGTAACAAACATTCAAAGATTAAATTGTAGATATGCACCTCTGTATT
TGGCACTGTTGATTAATATTATAACACCTTCCTCTCAAAGACAGGCATTCTTAAGCGTTA
GTCACAATATACCAGAATTTGCTATTATATAAAACCACCTTTTAACTTTATAACAGT
AACCAATTATTATAGTTTAAAGAAACAAAACGCAATGAGAACTGGGAATGGAATTCAAAT
CCTCCAAATTTCTTGCTATGCTCCAAGCTGCCATCCATAAAACAGGTTTAATTTGGGTAAT
TTTTCCATTGTGGGGAAGGGTCAACAAGAAACAATTTAAAGACAATATTTTCCAATACAA
ATAAAGACATACACTTTTTGTT

Sequence 546

TACTTAGGGCGATTGGNANNTCNCCGCGNGGCGGCCGCCCGGGCAGGTACAAGCTTCGA
CCCACGCGTCCGAAATAATAAAGCTAGAAGTAATATTTTTCTTTTGTCTATTTTCCAAA
TTGACTCGATATTGATGGCTACTTTTGTAAAGTTTTTATTTAAGNTTAAAGGGAATATTTA
TTGATCACCTCTATGTGCTCANTACCT

Sequence 547

TABLE 1
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TACTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTCCAGTGCTAAACATCAGATAAGAGCCTACCTGACATTTTGGAGAATTTGCTGNGCTG
GGATTGATATTCCGCATTGCCTAAGAGTAAAAATAAGACGGACGCGTGGGTGCGAAGCTT
GACCTGCCCGGGCGGCCGCGCCGCGGCGAGGTACCACAGGAGGCAGAAGGAAATCCTCA
ACCTTCCGAAGAAGGCGTAAGCCAGGAAGCAGAAGGAAACCCAGAGGAGGCGCGAATCA
GCCTGGCCAGGGATTTAAAGAGGACACACCCGTTAGGCATTTGGACCCTGAAGAAATGAT
AAGAGGAGTAGATGAGCTTGA

Sequence 548

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGNNAGGGTCGCGGTGGGTGCGA
CTNANGCTAGAGAATTGTAATACGACTACTATAGGGATCTAGATCACGAGC

Sequence 549

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTTTTTTTTTTTTTTT
TACCAGAACATCACATAAGTTTATTTAGATGTAACAGCAATGTTAAATTGACAAGTTT
AATTCTTAAGTGCACCAAGTAACTTAGCCATTTAAGTATTTTTTAAGTTATTCCTCC
AAAAAACTGAGGGAGCTTTTCTTTCCACCACCACACCATGGTTTCCAATAGTTCTCTT
TTTGGAGGACTTTTCAATTGATGAGTAACTGCTTTAGATATTTGAGAACTTCATTCCCC
AAATGAAAGCTAATCTGGACAACTATATATTGCATAGATTTCTCTACAGATTCTTTGCT
TAAAAA

Sequence 550

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGGATGAGGCGGGGA
GGTGGGACCCCCAAACATATATCAGCCCAACAGCCCTAAGTCTCCTTCTTTATTATTAGG
AAAACAACAACAACAACAACAAAAAATGGCGTCATGAATATGAACAGCATTGTCAGAT
GAATTAGTTGAAGTGGNTTTTTTTGTTTTTTTTTTTTTTGAACCTGCCCG

Sequence 551

CTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCANGTGCTTCGCCCCAC
GCGTCCGNAATAATTGGAAANGGCCTATAGATTAAAAAGCTGAGAAAGTATATGGTAGGG
AGCACACTCCCCACAAGTATGAACTCTGNGATTACGACATCTCATAAATNCATGAGCACT
CATGTTGGCTTGCTTTGTAGCTATGAACTTACCCTGTATTATTGAAACGTCAGCATAATG
ACTGGAAGGAGAAATTGGTCCATTTTAGAGCATTACTATTATGCTATCTGTCCATTTAA
TTAATAATTGCATTAAATTCATTTTAGAAGGNGCTATTACATTNGTAGTAAGAAAGTAA
TTCATATATAAATTTTATTATCAGATGGTTTACTTACAGATACTTATTTTCTGTAA
ATAGGAGAGTTTACCTGAAGAAAAATAAACTTTTNACTTTTCTGGGAAAAAA

Sequence 552

CTACTTAGGGCGAATTGGAGCTCCCCGCGGNGGCGGCCGCGCCGGGCAGGTACCAAGTGAA
TTTAAATAATTGGTGTGGATTGGCCAGTAGCTAAGAAGTGGGCTTTTAAAGAGTNTTGAA
NATNGAANGGGTTTTNTTTCTTTTTAAAAAAGAAAAACAACTATTGATTGTCTATAA
TGAAAAGCTAGGNNTTGCCTNTTCATGTNTACTCTCCTTCCAAATAGTTATATCCAAAA
CTGTTTTTCCCTCTCCCTACCTTGTCCCCCTATTAAATANAAACNGGGATTGATTAA
TGTCCCGCTCCTGAATACATGTAAATTTGTACCTCGGCCGNTCTAAACTAG

Sequence 553

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTC
CGCTTGTAATAAAAAACAAACAATTGCTAAATAAAACAACCTGAGAAAATCTCCAGAGA
ACTATACTGAGTGAAGGAAGAAAAATCCCCAAAGATTACACACTGTATGTCATTTATATA
ACATTCTTGAAATGACACAATCACAGAAATAGAGAATACTGGTCACTANTGCATTAAGGA
AGGTGTGGAAGGATGTAGTGATGGGAGGAAATGTGTATGGCTGTAACAGGGCAACAGAGG
CNTCATTGTGATGATGGAAGTGTCTGTNTCTTGGGTTTTTTGAATGTCA

Sequence 554

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAG
AACATCTTGATTTACAAGGGACAAAATGATGCAATTATATGCTGNCCAACCTACTGGTG
AACTGGATCAGAATGGTCCAAGGACTGTAAACAGAGGAAGTNTTACATTTGAAAAC

Sequence 555

TABLE 1
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CTACTTAGGGCGAATTGNANCTCCCCGCGGGGCGGCCGCTAAAGGAATAATCTGCAGAA
CATCTTGATTTACAAGGGACAAAATGATGCAAATTATATGCTGTCCAACCTACTGGTGAA
CTGGATCAGAATGGTCCAAGGACTGTAAACAGAGGAAGTNTTTACATTTTGAAAACTTG
CGGACGCGTGGGTCTGAAGCTGTACACCTT

Sequence 556

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTGG
TTTTGGTTTGTTTTTTGGGCTCTCAGGTTTACCCTCTCTCCCATCTTCCCAGGTTTAG
GAGGCAGGCCTCTNCCTTTCTACCCTCCCACCCGAAGGTGAGTCACTAGAGTGTTACAA
GCTTACTGGCAGGGAACACTACAAATTAACAAACAGTAAGTTACCAAAGGGGATACACC
CTTATAAAAGGGTACCTN

Sequence 557

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCACGCGT
CCGCTTTCAATAGATCGCAGCGAGGGAGCTGCTCTGCTACGTACAATCTTTCAAAAAA
TGAACATGTAAGAAAAAGCAGTTTTTCAATTGTGCTAATTATTGCAGGCCTTCATGCACGTA
AACCTCAACAAAATGTGTGCCAACAATATACAAATTTCCATATAAACAAAGTCATTGATC
ACTAACAAATATAAACATGGNTTCTTTTATATTAGATTTTTTTTAAAAAAAGCTATTT
ACCAGCAAGAAAAAACAAGTACCTGCCCG

Sequence 558

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGC
ATTTATTAAGGCTTGTATATGTTCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATT
GATCTTAACCACAAGGCTGAGAAGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTAT
TAAATCCTCCAGAGAAGCCTGTAGTGTGGGATGCAAACTATTTTAAGTGTGACCATGAGG
TGTTTTTTGTGGACCATTTTAAANCCAATGATAGGTTCTAAAGCAATCTCAACCTGAGT
TAGG

Sequence 559

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGGCTTCGACCCACGCGT
CCGCTCCAGGAGACTTCTGCTTACCTCTCAGTGATCAAAAACCGTTTCACCACAGTTACT
TACCACGTCTACCGATCCGCATTCTCGCAAGTGTCTTCACTCCATTTACTCTACTGCA
TTTTTCACTGTATTTCTCATGCCAAAACCTTGGGCTTCTCCACCAGTCTGCACACGTTTCT
GCTCTCAATTCTCACAGCCATCTATTTTCTTCTCCACTAACTGTTAGAGGGATTTCTGN
AGAAATTAAGAAATTCCTATCACTCCTAAAAAAAAAAAAAAAAAAGTGCGGCCGCTCTAG
AACTAG

Sequence 560

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCACG
CGTCCGCAAGTTTTCAAAATGTAAATACTTCTCTGTTTAAACAGTCCTTGGACCATTCTG
ATCCAGTTCACCAAGTAGGTTGGACAGCATATAATTTGCATCATTTTGTCCCTTGTAATC
AAGATGTTCTGCAGATTATTCCTTTAA

Sequence 561

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGCTTTATTTATTTCTT
TTAGGAATTGCAGGTTCTTAAACAAAGTAGGGGTGAGGGGGGTGTTACAAACCAGTCACTA
GGCAGGAACATTAGACTCCAAAAGCAGAGAAATGCTTAATTTTTCTTCTACCTGTTTAC
CACATTCATGTANAACGTAGTAAAAAGATGGNGAATCAGGCTGAATCAATCTAAATAA
CAACTTAAGGCTCCCAAATCACATGAACCTAGGACCACTAAATCCAATGTCAGACGTGTT
TAAATGGNGCACTGCTCTACATTTTTCTATTATGCAAAGAGCTAGAAAATAATGGTAGTG
TCATTATGACATTCCATGAAAATGAAGAAAATCTTTCANGAAAAATTTAGAAAATAAAAA
TGTTTACT

Sequence 562

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTGCCAAAGCCTTAAC
TAGATTGTTACTTATGTTTCTAAATCTGNNGAAGCACATTTTCTTTTCTTCTTTTCT
TTTACTGNTAATATCCTTATTCTCTATTTTACCAGTGGAGAATGTTTAGTATTAATTTCC
ATTTAGCTCAAGATTCAAGAAATGCAAAGTGCTATTTTTATCAAATTTCTGAAAGCCTAC

TABLE 1
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TGCTTTCTGCTTTGGAAGTCCACAAACAGCTCTTTAATTTCTTAAGCCCCACTTTCTC
ATCAGCAAGTTGGTGTGGCAATGGATCATAATAGGTTGCTGGGAGGATGAAGTGAGCGGA
CGCGTGGGTCGAAGCTTGTACCT

Sequence 563

CTACTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCAGTAATCACATA
AATTCTGCAATCATCTGTTTATTTAGCTTAAGTGTATTTTTTTTTTTTATTGTTGAAGTTGT
TGTTGTTATTNCAGTCTTTTTCTTATTGGGTTGACCAGACTTGGTAAATCTGTAAGAAA
GTTCCATAAT

Sequence 564

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTTCTTCAGATTCAAAT
GCCAACACTAATTTGAACTTCTTTGGGTCTATGACAGTTTGCAAGCCATACAAACCCAAA
GAGCTAATCTGTGATTTCTTAAGTTGAGAAAATAATAATNATAACCACCACTGGAACCTA
CATAGGTTTGTNGNTTATTTAACATGACTTAACCTTTTGTGTTTTTTTTGAAAAAAA
AAAAAAAAAAGTGACCTGCCCGGGGCGGCCGACGGCCGGGCAGGTGCGNCTCAAATTNT
TNAATTTNTTTTGGAAAGACANGNATTTTTTATTTTGCCAANGCTAAAACCTTNACNCTG
GGCCTTTAAAGGGGATTCCNTNCTGGCCTTTGGGCCNCCAAAAAGTGCTTGGGATTNTN
GGGTNNAAACCCCGNGGGGCCCTAGCCTACCAGTTTTTTTTAA

Sequence 565

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCC
GTGCAAATTTGACTTTGTAAATGGCCCTTGGGCTCTGGGAGGAAAGCAACTGTTGGGCCA
TGTGGTTGTATCTTTAGTTTTGTAAAGAATTGCCAACTGTTTTATAATGTGGGTATATC
TTCCACACTTCCAGCACAAATGTATGAGTGATCCAGTTTCTTAGCACCATAGTCAGAATT
TACTGTTGCTACTATTTTTAGCTATCCTGATAGATGTGTAGTGATTTTTATTCTGGTT
TTGAAGCAGTGTCATTGTCTGGGGTAAATCCTTGAGGTTTGTTGTCTCAGTCAAGGGGAA
TCAAGGGACATGGACACACAAGTAGTGAATTAAGAGTGGAAGTTTAATAGGTGA

Sequence 566

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCGAC
CCACGCGTCCGTCTTATTTTTACTCTTAGGCAATGCGGAATATCAATCCCAGCACAGCA
AATTCTCCAAATGTCAGGTAGGCTCTTATCTGATGTTTTAGCACTGGAAAAAAAAAAAA
AAAAAAAGT

Sequence 567

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGGCAGGTCAAGCTTCGAC
CCACGCGTCCGCATATTTTCACTTGAACAATGTGGGATGGGTGCAATTTATTCCATCT
TCACTAAAATAGAAGCAATTCATAGGTACCATAAACCTATTTTAGGTACCACAAGGTGT
CTTTTACACAGCTCATTTGAATACAGGTGTTCTGAGAAGGGGTTTCTATTTTAAATTA
CCATATCAAATAAATGTGCCTTATTTTTTATAAGNCTTGTTAAATCAGTGTCATATT
ACTGTTTGGGGAAGG

Sequence 568

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAATAAGCCCACCCCACT
AGGAACTATGTTAAAAAAAATTCAAGAAAGAATTTAAGGGAGATTACAGTGTTACTGTG
ACACCAGGAAAACTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGGGTTGG
CCATCAGAAGGAAGCCTGGACAGGTCCCTTGTTTCAAAGGTATGACACAAGGTAACCCGT
AAGCCAAGGCACCCAGACAGTTTCCATACATAGAAAGTTACAGCTGCTTTTATACCCCC
TTGCCCCGCCAACGTAGTTAAGAGAACAGCAGCATAAGCGGCTGGCAGAGGCAAGGAAAG
ACCAGTNNAGAGAAAAAAGGCCATCTATACCAATTCTAAG

Sequence 569

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGAGCGGCCGNC
CGGGCAGGTACACAAACCAGATGTATGCANTGATGCCAAAAGTCATCTNAAAATCCAAG
CTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCTTGAAGATTTACTTTGTA
TACTTCAAAAGATCTGGTCATGAAATTTTATAGCTAATACATAAAGNGCCGAATTGAAATC
CAGAATACAATAGCTNTGAAGGGCCGCTAGAGTGACAGATAACCAACCCATTCTACCTAAC

TABLE 1

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TCAGGTTGAGATTGCTTTAGAACCTATCATTGGGCTTTAAAATGGTCCACAAAAAACAC
CTCATGGGCACACTTAAATAGTTTGCATCCACACTACAGGCTTCTCTGGAGGGATTTA
ATACTTTGGG

Sequence 570

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTATTTCCCTCAGTAAC
ATGTAATTGCTACATTTTTATAAGAAGGTATGGTTAGAAAAAATGTGAAAGATCACTT
AAACCAAAGCCAGTTACAAGGAGTAATCTCTCCTGTTGGTTTACCTTCACCTCANAATA
CAAGAATATTACAATACATAGTGAATAGTTGTCTGTAAACATTTCTACCAGTTGTTTCANT
AGCATATTGGTCTTGGCATTCTTGGCACTGTGGTTCTGCTGTATTATTTGTGATGTCTT
ATTGTTTGTGAGCTTTTGTTTTTTTTAAAGAAAAAACAAAACTAAGTG

Sequence 571

TAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCCAGTAATCACATA
AATTCTGCAATCATCTGTTTATTTAGCTTAACTGNTTTTTTTTATTTGNTGAAGTTGTTG
TGTGTTATTTTCAGNCTTTTCTTATTGGGTTGACCAGACTTGGTAAAATCTGTAAGAAAG
NTCCATAATTATGGGGAAGATTTCTCTGAATTGGCTAAATTCCTGTAGCTGAAAAAAA
AAAAAAAAAAAAAGT

Sequence 572

TTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCACGCGT
CCGCAAGTTTTCAAATGTAATACTTCCTCTGTTAACAGTCCTTGGACCATTCGTATC
CAGTTCACCAGTAGGTTGGACAGCATATAATTTGCATCATTTTGTCCCTTGTAATCAAG
ATGTTCTGCAGATTATTCCTTTAA

Sequence 573

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTACGGC
TTCTGACAGGCCTCAGAAGAACATTCCCTACCCCAAATTATAAAAATAATCTTGTATAT
ATTCTTCTCAAACTTTTATACTTTTTTAAAGGCTTGGATTTTTAATCTATCTGGAATGTA
TTTTTAAATACTGAGTGAGTCACTTTTCTCCCGACGCGTGGGTGGAAGACCT

Sequence 574

GAATTGGAGCTCCCCGNGGTGGGGCCGCTCGAGGCCGCTCTGACCTCTTAAAGNANACT
TATTATGCTAATAGTTGATGCGCCCTTTTGTGNANCAGTTACCATAGGTTACATGATAA
NTATATATTGTTNGATGATCTGATTNCTGNNTNCCCCACCCNTGCAAAACAACAACAA
AAACCTTTACCAGGCTNTATAACANGGGGACCAAACCTTGNTTTTGTCTCATCATTGCCGGA
CG

Sequence 575

AGGTACTTACCCAGACAACGACGCCGCTTACCATGATGATGGACAACAGGCAACTTTT
TTTTGGAGTTTCAGCTTGCTTCCAACAGGGACGGTGAGTGTGAGGTTTATTCCCATTTC
TAAGACGATAGAAGTTTTCAGCCTAAGCCGTATTCCTAGGTAAGCAGCTGGATTGCAAGT
TTTGTCTTGGAAATTCTCCTTAATGACTAAAAGTTAAAGAATTAACAACCTAGCTGGGC
TTAAATTTCTTNCTTACCCATTAGAAGTACCCTTGCCC

Sequence 576

TAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGNGGTCTAAGAGACAGGGTCTCACTACA
TTGCCTAGATTGGNCTCACACTCCTGGGCTCAAGCAATCTTCTCTCTTGGCCTCCCAAA
GTGTTGGGATTGCAGGTGTGCGCCACTAGGCCAGCTTGAAAAATTTTAAATGCATGTGG
TAATCCACAGGAGATCACATTTAGTATATGACCAAGTTAATTAAGAAGNCAAAAAACACG
TTAAATTTAAGCAGAATAAGGCTGGGTTCCGTGGCTCATGTTAGTTTTATCCTTAAAT
TGTCTGAGTTCTTAGAACACAGAAAAACAAATTTGAATGCATTTCTAACAGCTTAATAA
TTTATATGTCCCATTATG

Sequence 577

GGGGNGGCGGCCGCCCGGGCAGGTCAATGCTTCGACCCACGCGTCCGATTTTCAGGTTGAC
TTTTCTCACCTTTAACCTCTTTATATAGCACAGTGCAATCTGGCCCTACTGCCACTTCAT
CTGGGTTATCTGTAGCTTGAGTTGTAAAAAAGTGCGGCCGACCT

Sequence 578

TABLE 1

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AGGTGTCGACTCAAGCTTTCAGATATAGGCATTCCAGAATCTTCTCTTTACGAGTTCACC
TGCTAGTATAATCTCCACAACCTTGAATGGCATTGGTTGTTCTGTAATTCCTGCCAAAAGC
ATCACAAGTTGTACCTGCCCCG

Sequence 579

CCGGGCAGGTTACAAGTCGACCCACGCGTCCGCTTCAGAATATCCAATTCATGTGAAC
CAGGAAATTATAGTTTAGATATTTTTAAATGATTTGCCTGTCAACGTATAACACAAGGGT
GTCATGACCAAGCTAGATCTCTTTACCATATCATTAAATAAAAGTCAAATTTTAAATTTGT
GCCCAATTTGGCTGGGTGTGGTGGCTCATTCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 580

GTGAACCTGCCCGGGCGCGCGCCGCGCACTTTTTTTTTTTTTTTTTTTTCTTTTGAGACA
CAGTCTCACTCTTGCCCAAGTTGGTCTAAAACCTCTGGGCTCAAGCAATCCTCCCGCTT
CAGCCTCCCAAAGTGCTGGGGTTACAGCCGTGTGCCACTGTGTCTGGCCCTTTTCTTTT
CATAGGAGAAGGGTTGTTGACTCCCAGGAAACGTCACCTGGAACCAAGAATGTGAAC
AGGACCCCGCCTGTTGGCAGCTGCATTTACTTGACTCCTGTTCACTGTTTCTTAGCCTT
GTCCTTCTCTCCTGCCAGTTCTAGGGGACACTGCTTCTCCTGGTTGACCTC

Sequence 581

CCGGGCAGGTACCCTAAACCTTAAAGTATAATAAAAAAAGATTATTTCTATACTTCAA
AATCAACAAGATTTGATTGCATTTAAATTTTTCTGTCCATTTGTTCTTCTATGTAATACT
TTAAAAATAATTGGCATAAAAAATTCAATCAATTCATAAAAGTCCAAAGCAAAAAAACA
ATCTACTGACATCTCTTGAGGAAGAAATGATCAGGATTGACATTAATGAACCTCTCACA
GAGACCACTACACACACACACAAAAAGAAGGATGGGTGAATGGATGCAGAGAGAATTT
AATAAGACTGAAATGATGCCATACATGCTTTTAAAAAATAAAAAAGTATTAATTTTAA

Sequence 582

CCGGGCAGGTACTTATACTAGAAGATGCTCCAAGGTTTCAGAAAGGAATTAATTACTTTC
AATTTGCACAATTTAGAACAAATATCTGGCTTTTCCCTAAGCTTAATGATTTTCCATTT
ACACAATAAAATATAATAGCATTATTTTATAATCAAGTTTAACTGATGGTCTATGATAG
TAGAGCGATTTAGTATTTTGACAAAAATCTTATGAGACATGAAGTCATTCAATTTGCCGG
ACGCGTGGGTGCACTCAAGCTAGACCT

Sequence 583

AGGTGCGCATCACACCCGGCTAATTTTTTTTGTATTTTATAGTAGAGACAGGGTTTCACCA
TGCTAGCCAGGATGGTCTCAATCTCCTGATCTCGTGATCCGCCCACCTCAGCCTTCCAAA
GTGCTGGGATTAAGGCGTGAGCCACCACGCCTGGCCAGGAGATTCTTAATTTATTTCTGA
ACTCTATCAGTTTTGTATTAGGACATCTTATTTAATATTATCAAAAGATAGTTCCCTCTTA
GAGGCATAAATCAGTCAATCAACAAACAATAGGCAATCACGGACGCGTGGGTGGAAGACC
TGCCCCG

Sequence 584

AGGTGTACAAGCTTCGACCCACGCGTCCGCTTTTCTGGTGTTCCCTCTTACGTGCACA
CCCCTTGCTCCCCTTTGGGTTGACTTATAATCTGACTTTTGTGACAGATGTTAGGAGGTG
GAGCAAAGGAATTTAGACCAATCAGTTAAGAGACTGCTGTGGGGTAAGAAAAAATTA
GCCTCTTAAATTAATCTTATCAAAGGAAAAAAGTTGGAAGCACATGATAGTATAACCA
GAAACATGACACAGAAGAATTAAGGGAAGAACCTGCCCCG

Sequence 585

CCGGGCAGGTGGAAAGGTGGGTGGGGAGAGGGAGGCTTATTTGTTGCTGCAGTGTAAC
AGTGAACCTAATTCATATGACTCAAACCTAAGGTATATTTGGTTAGATCTAGGTGAGTTC
TACTTTAGAGGAAATCCTGGTAACCTGTTGTTTGTGTAAGTTATAGCTGTAATTAATTT
TCCCTGTATTCAAAGCCCCCAACCCCTGCATTCACTATGCATTTAGACTTCCTTAG
GCAAAGTCAAGGCAACAAGCTGATGATTCTAAGCTATTATTCAAGGAGTATCTACCATCA
TAAAGGTGGTTTAGTCATATAGATAATATCAATCAATAAT

Sequence 586

CCGGGCAGGTCTTCGACCCACGCGTCCGTGATTGCCTATTGTTTGTGATTGACTGATTT
ATGCCTCTAAGAGGAACTATCTTTTGATAATATTAAATAAGATGTCCTAATACAAAAC

TABLE 1

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ATAGAGTTCAGAAATAATTAAGAATCTCCTGGCCAGGCGTGGTGGCTCACGCCTTTAATC
CCAGCACTTTGGAAGGCTGAGGTGGGCGGATCACGAGATCAGGAGATTGAGACCATCCTG
GCTAGCATGGTGAAACCCTGTCTCTACTAAAAATACAAAAAAATTAGCCGGGTGTGATG
GCGACCT

Sequence 587

AGGTACATTGTTAGACAAGTGTTTATCACTAATCTGGAATACATCATCTTCAATAAGGCT
CTTGTTTTCTCCAAGCTGCACTGCTCACACTGCTCAGTTTTCTGTTAAGCAACCTGCTC
ATTATAGTAGAGCACCAAGGTGATCTGTTCTTCTGTTCTTCAGAAGTTCACATTTCTTG
TTGCAACAGGGCTACATGATTTTAAGATTCTCAAAGTCAATACGAATTAACATTATTTT
CCATTTCCATTCTGTATATCTTCACATTCCATAAATAATACTCATGTATACGTTAAAT
TTCTTATAAGTTCAACACATTGAAAGCTAAAATAAAGACTTCCTACTAG

Sequence 588

CCGGGCAGGTACACAAACCAGATGTATGCAATGATGCCAAAAGTCATCTCAAAATTCCAA
GCTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCTTGAAGATTTACTTTGT
ATACTTCAAAAGATCTGGTCATGAAATTTTTAGCTAATACATAAAGTGCCGAATTGAAAT
CCAGAATACAATAGCTATGAAGGGCCGCTAGAGTGCAAGATAACCAACCCATTCTACCTAA
CTCAGGTTGAGATTGCTTTAGAACCTATCATTGGCTTTAAAATGGTCCACAAAAAACAC
CTCATGGTCACACTTAAATAGTTTGCATCCACACTA

Sequence 589

CCGGGCAGGTGACTTGGCTGTGAAAAGTGCTAAAACAGATAAAAGACTATACTGACAGGC
AAATGGAGCCTGTTATGACACTGACATTGAAGGTGAAAGGAGAATCCAGTTCACATTAGC
CAGGGTCTCAGGGACCAGGTTTTGAGGCAGTATTTCTGCCTCTTGAGGACAGGGCAGAGC
AGGTGGGTAAAAAGCAAAGAGACCAGGGAAGGGGGACTAAAAGTAAGGGAAACAGCATCT
GAGGAAAGGCTCCTCTGACTGGATTTTCACAAACATTATTTATTAACCTCACTAAACAAG
GATAATGGGACAAAACAGGGGCAAGCTGGAACCAAGCAGGGGTATTTGGCAG

Sequence 590

CCGGGCAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAAA
GGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTCC
GTGTTGGTCACTGNCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTGTTGGAGCAA
GTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTG
GTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAGC
ACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTCCCAGGAC

Sequence 591

CCGGGCAGGTGAAAAGGTGGGTGGGGAGAGGGAGGCTTATTTGTTGCTGCAGTGTAAC
AGTGAAACCTAATTCATATGACTCAAACCTAAGGTATATTTGGTTAGATCTAGGTGAGTTC
TACTTTAGAGGAAATCCTGGTAACTGTTGTTTGTGTAAGTTATAGCTGTAATTAATTT
TCCCTGTATTCAAAGCCCCCAAACCTGCATTGAGATACTATGCATTTAGACTTCCTTAG
GCAAAGTCAAGGCAACAAGCTGATGATTCTAAGCTATTATTCAAGGAGTATCTACCATCA
TAAAGGTGGTTTAG

Sequence 592

AGGTCAAGCTTCGACCCACGCGTCCGCAGCCTGGGTGATAGTGAGATCCTGTCTTAAAT
GAAGAAAGAAAGAAAAAAGAATGAGAAGGAAGGATATTAATTGAAGTAAGAGCACATTT
GATTACAAATAGAAGAGGAGTAAGTGAGAACTAAACGGGGAATACAGATAGCAGAGATT
AAATAGGCTATAAGAAAAAAGGGATGATAATAAGACCATGGTAGTACCTGCCCG

Sequence 593

AGGGCCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGTTTA
CAATATGGTGACAACAGATAACTGTAAAACTTCTTTTTCAAATAGAACCAGCAGGAGCA
TGCATGGAACACATATACCAACATCTTTCTGATAACATTAAACATTTTTAAAGATGTT
AAATGTTCTTTTCATTGNGGTGCTTCAGATTCTGATTCTAGAACTTGTGTGTGTGGAAC
CTGTGTGCTAACTATTCTGTTGGAATTTACCAGCAAAGAATTATCTAAGAATTTTCAAAC
TAAATGATGGGGGAAGGAACATAACATTTTTGCAGNCCCTGGAAATGTAAATGTTGTACC

TABLE 1
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Sequence 594

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAATAAATAGC
ATTCOCACGGTGACCACAAGTCTTGGAATCAGTTCAGGTGTCGTGCGCGGTGACAC
CGCTGCCTTCTGACGGTAAATGTATTGTAGAATTCATGTTGTTATCAGGCTTCAGTTTCC
TCATCTCTAAATGAGAGGATTGGATAAGTTAGTAGTTTCTAATTTTTACTTTTAATCAG
TGGCATCTCCCATTTATTTTTCATTTGAAATAAACTTTTGAATTTTATCTTCTACCTAA
ATAACATATTTTGTTTTATGTTTCAAGATGAAGCTCACACTGAGTTGGAAAAAAGGAAAA
AGCAAAGGATCAAAGCTG

Sequence 595

CTATAGGGCCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTGCCAAAGCCTT
AACTTAGATTGTTACTTATGTTTCTAAATCTGTGGAAGCACATTTCTTTTCTTCTTCTT
TTCTTTTACTGTTAATATCCTTATTCTCTATTTTACCAGTGGAGAATGTTTAGTATTAAT
TTCCATTTAGCTCAAGATTCAAGAAATGCANAGTGCTATTTTATCAAATTTCTGAAAGC
CTACTGTCTTCTGCTTTGGAAGTCCACAACAGCTCTTTAATTTCTTAAGCCCCACTTT
CCTCATCAGCAAGTTGGTGTGGCANTGGATCATANTAGGTTGCTGGGAGGATGAAGTGA

Sequence 596

ATGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGA
TTATTCTCTCCATTTAGGCTATAAATCTTTCAGTGTAGGGTGTTTCTAATGTCATATTCT
TCCAAAAAATAAAAAAAAAAAGT

Sequence 597

CCGGGCAGGTCTTCGACCCACGCGTCCGGCTCTCCAGTTTATACATGAAGAACTTTCCG
AAAGTCTTGCAGCTTGTGGAGAGCAGAGCTGGAGAGCAGGCTAGTCTGATTTTAGAAGGG
AGTTAACCATTACATAACCTGCAGGTGGCTTCTCCCCATACCTGCCGTGGGATAATATGG
CTCACTTTTTACTTCATTTACAATATTTAATAAGTGCGATTTTAGACTTGAGAAGAGAAT
ATTTTCTGCTAAAATTATCCCCACTAGAGATAATCACCAGTGAATTAATACTGCAGCA
ACGGAACCAGTCAGCTTTTTTGGTAATCATTCCCTTCCT

Sequence 598

CCGGGCAGGTCTTCNACCCACGCGTCCGGCTCTCCAGTTTATACATGAAGAACTTTCCG
AAAGTCTTGCAGCTTGTGGAGAGCAGAGCTGGAGAGCAGGCTAGTCTGATTTTAGAAGGG
AGTTAACCATTACATAACCTGCAGGTGGCTTCTCCCCATACCTGCCGTAGGGATAATATG
GCTCACTTTTTACTNCAATTTACAATATTCAATAAAGTGCGATTTTAGACTTGAGANGAGA
ATATTTTCTNCTNAAATTTATCCCNCTAGAGATAATNNACCAGTGAATTNATACTGC
ACCNACGGAAACCAGTCA

Sequence 599

AGGTGCTTCGACCCACGCGTCCGGTATTTCTCTTAAAGTTAATTTTGATAGATATTTATC
TAGATGCTTTCTTTTTTCCCTTGCCATAATAGCTGGCTTGAGAGAGAGTTATGTTTGAA
AAGGCTTGCCTTTTTTCCGTCGCTCTG

Sequence 600

AGGTCAAGCTTCGACCCACGCGTCCGTGATGCTGGCTTCCCGGTCAAAGCTGAGGAGTTT
TGTGGTGCTTTCTCAGGAACCTTCTGTACGGAAACCATTGCACCCAAAATTGCAAGACC
TTTCATAGAGACTTTCTCAGGCCCTCAAGAGTATTTGAGTATCTGGAGGAGGATGCCCA
GAAGTCCNCACAGGAGGGGGTGCTTGGGACCACACACTGATGCTCTTGNCATTCAGACTC
TGAGAAACATGCCGCGTGATGAANAAACCATCCCAATTANANGAAGCTAGCTGNNTTCA
TTGNAGCAGCTTTACCCCAATTT

Sequence 601

CCGGGCAGGTCAAGCTTCGACCCACGCGTCCGTGATAACTTCTCCTAAGTGCCAGGCATT
GTATTACATGCTGGGAGCACAAAGATGAATAATAACAATAGGTTACAGAAAAGATGAAT
TGATTGAGAGAAAAAGAACCTCCAGGAGCCCTCAGCGTAGTAGGGGGTTGGTGTGGAG
GGTGGAGGAATGGAAAAGGNCCTGAAATGCANGCAGAGAAATGATGAAACAATTCCNGGG
GCTGCGGNGAGGTTANATGAATATCTTTACAGCAGCCTNGAAGACTGATCANGTTACTAT

TABLE 1
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ACCCTCTCTTCTGTCCACGTGCATTTNA

Sequence 602

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCATTTATTAAGGCTTGTATATGT
TCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATTGATCTTAACCACAAGGCTGAGA
AGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTATTAAATCCTCCAGAGAAGCCTGT
AGTGTGGGATGCAAATATTTAAGTGTGACCATGAGGTGTTTTTTGTGGACCATTTTA
AAGCCAATGATAGGTTCTAAAGCAATCTCAACCTGAGTTAGGTAGAATGGTTGGTTATC
TGCACTCTAGCGGCCCTTCATAGCTATTGTATTCTGGATTTCATTCGGCACTTTATGTA
T

Sequence 603

ATTGGAGCCTCCCCGCGGTGGCGGCCGAGGTAGCTTGAGTCGACCCACGCGTCCGTTTCCAG
ATCCGTTTCAGAAACGTGAGTCTCTAGCTCAGGAGATTTCCACAACGTCTTAGTAACC
TGATCTTATTCTCATGTTTAACCTTGGCAGTGGGAAGTCTTCTGCTGATCCTGCCTAAT
TTACTGGAGTTGGCATTAAATGCCATTTCCCTTAAGGCGTGGCTCTTGGACCAGTATCAC
CTGAGAATTTGATAGACATAGACCCAGAGTTACTGAGGGCAGGTGCTCTGTTTTGGGGAC
CAGCAATCGGTGCTTTAGCAAGTNCCTTGGGTGATAGGGGTTNTGGAACTACTGCTCTA
AAGCATNATCTGTTTTTGAC

Sequence 604

GGTACCCAAAAGATATCACTGTGAAGGTTTGGATACACTGACTGAGGAAAAAGAAGGTC
CTGAAAGCGTNTAGACAAAAAAGACTACTTGTAAGTTGCAAGAATCAGAATGGCATTGG
ACTTCTCAGCTTTCCTCATTAGAAGTTTAAGATCTGAAGCAATCTTTAACTCGTGAGGA
AAATTAAGTCTAATAAATANTTTTCTTCTAGCCCAAACAATCAAATGTGAAGCTAGAAT
AAGCATTTTCAGGTAAAAAAGTGC

Sequence 605

CCGGGCAGGTACANNTTGTGATGATTTTGGCAGCAATTACAGAACCAAGGCCATTCA
AGTTGTGGAGATTACTAGCAGGTGAACTCGTAAAGAGAAGATTCTGGAATGCCTATAT
CTGAAATCAGAAATCCTAGTAGTTTGTAGTTTGCCTCTTCTAGAAGTTCAAGAGACTCAA
GTCATAGGCTACAGATGTACCTN

Sequence 606

AGGTCTTCGACCCACGCGTCCGCAACTGTTGATCTAACTTTTCCACTTGAATGTCTAATT
GGCAATCAAACCTAACATGTTCCAAACGAGTTCTGAAGCACCCCTCTGCCAAATCTAC
GTCTCCACAGCCTTCCCTATTTCTCTACCTGGTACCTGCCCGGGCGGCCGCTCGACCTG
CCCG

Sequence 607

AGGTCTTGAGTCGACCCACGCGTCCGGAGATGTATACGCCACTATAGGAACTATAAGAAA
AAGTCAAATGGAAATCTTATAAATAAAAAACCACAGTCACTATAATGAGGAAATACTTTGA
TAAGGTGTCAGTGAACCTAAAAATCAATCAATAGAACTACTCAAACCTAACTCAAAGA
GAAAAAAGATGGGAGATAATTATTTTAAAGAAATTGGTCATCAAATGTAGCAACAA
GTTTGCCTTATCCTATATCATTTGAATTTTCAAAAAATAAGCTCATTATACAATCTTTAA
AATATTTTGAATAGAACTGTTTCATGTGTTATTTGT

Sequence 608

AGGTCAAGCTTCGACCCACGCGTCCGGGGAACCCCTTGTTGAGGTTCTTTTTAGGCAACCC
AAGCCAAGACAACAAAGTAAGATAGAGCCCAATGTGGTTCGTATAAGGTTTTTCAAAGA
AAGTAACACTTGAGTTAGGTCTTAAAGTTTACCTAAGAACTGCCAGGTGGACAAGAA
GAAAGGGTGTCCAAGTAGAAATAATAGCATGGACAAAGGCAATGTAGCAGGAAAAGTCT
TCGTAAATTCAGGGAATTTCAAGTGTTCACGATGGAAGGAGCAATAGAGTCATTTACTT
GCGGTGGCAGGGGATGTTGGAATGTAAACAAGAGTGAGATAC

Sequence 609

AGGTCAAGCTTCGACCCACGCGTCCGTGATGCTGGCTTCCCGGTCAAAGCTGAGGAGTTT
GTGGTACTTTCTCAGGAACCTTCTGTACGGAAACCATTCACCCAAAATTGCAAGACCT
TTCATAGAGACTTTCCTCAGGCCCTCAAGAGTATTGAGTATCTGGAGGAGGATGCCCAGA

TABLE 1
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AGTCCGCACAGGAGGGGGTGCTGGGACCACACACTGATGCTCTGTCATCAGACTCTGAGA
ACATGCCGTGTGATGAAGAACCATCCCAATTAGAGGAGCTAGCTGACTTCATGGAGCAGC
TTACACCAATTGAA

Sequence 610

ACTTTTTTTTTTTTTAGCTTGAGTCGACCCACGCGTCCGGGGATCTAGATCACGAGCG
GCCGGCCGCCCGGGCAGGTACGGAAGCCATGCACTTGCCCTCTCCTTCAGAGCTGGGATTT
TTTTTCATTTTGCTGGCTGTGAGCACACACAGCCACAGGTGCCTAAGCCTCTTGATG
TGTGTTTTGAAGTGTGCTCTGAGTTCTGTGTCTGGGTGCATGCTCTCCTCTTAGCGTG
GGTCTCCTCCCCTGTGTAGCACTTCACAATGTTAGGCATTTGTCTGTGATAGCAGCTGT
TCAGTAATTTCTACTT

Sequence 611

AGGTTTCGACCCACGCGTCCGGAATTTATCTGGCCAGGCATTGGTAGTTTACAGAAGTCT
ACCAGATGATTCTAATGTGTGGTCAAGACTGAGAACTATGTGTTAATTGGGTTCAATTC
AAGAATACTGTAAAAATTTTATCTAAATACTAAATATCCATAAAAGAAACCTCGGTAATC
AGGCCAGGTTTTTGAGTTTTTCCAGATTAGCCCCAACTACAGGGGAAAGAGACTTTCGCAC
TATATCCCAGAGTCTCTGCTCCTGCTTCCAGCCTCAATGCACTGGGCCTTTCTGCTGCCT
TGGAGCACTTAGAGGGATTACAGGAGGAGTGATCTGTGGAGTT

Sequence 612

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCAGCGCCCCGGGCAGGTACATACAGCCTGAAG
TTAACCTTTCTATGTTAAATGAAAAAACTTTGTCATTCATCAGGTCACAGAAACCAAAAA
CTAAACAATGCAAAAAAAAAAAAAATCTAAAAATAAAAGAAATTTATATTTGAAGTTATTC
TGGATATTCGCACCATTTTAGCTTCTGAAAAAATGCAACTATGAAATGAAGACCTCATA
TATTTTCATTTATCAATATAATGTTAAAGTTTCATTCCACCGGGTGTGGNGGCTCACAC
TTGTAATCCCAGCACTTTGGGAGGCCGAGGCCGGGCGGATCATGAGGTCAGGAGATCGAGA
GTATCCTGGCTAACATGGTGAAACCCCGTCTCTCTAAAAAAATTCNNNAAAANAAAAAA
AAGGAA

Sequence 613

CGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTGTAGTTTTCTTAGCCATTTTTC
AATAGTCTACACAGTGTTTATGTTTCCTTTTATTTGTGTATAGTGGAGTAGAGGGGAGGT
TTTTTTATTCAAATAGAAGAAGCTAAACTCAAATGCAATGTCAGATCTCANAATAAACT
GACCCAATTTCTGAAACCCAATAAACACATTTCAATTTGTAATATTCTTTATTATATAGCT
CTATGAAAAGTAATTTGTGACTTTGATCTTAAAAAGAGAGTTTTAAAAATACACAGTAA
TTGAAAGAAAACTACTACATTTAAACAGTATTTTCTGAAAACATAGAATGAAATGC
AAGTATTTTGTGCATGGCAGCTGTTTTTAAGGAACCAATGTTATATATGGNGAATTTTGT
GGAAGACTATGTCTCTTAAAAATTTTCTTATAAAATANCATGGCTTTTTAATAGCTGGGA
ATCTGANGNNGGATTTCCCATGAAGACCTTAAATGGCTNNGCAGGAATTATAAAAAAG

Sequence 614

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGCCTGTAATCCCAGC
TGTTGGGGAAGCTGAGATGGGAGGATTGCTTGAGCCTGGGATACTGATATTGAGGCTGCA
GCGGGCCGAGAATACCACTGCACTCCAGCCTGGATGACAGAGTGAGACACTGGCTCAAAA
AAAAAAGAAAAAGGAAGAAAAAAGTTTAAATCAATGAATGTTCTCATTTCTAATGAAAT
AATGAAACATTATTGGGAGAGTTATAGTCATAATCATCTTACTGCACTATCAATTA AAAA
ATACATCATTTTTTAGAGCACAATATATACCATAAAGAATTATTCAAATAGTCTAAATAT
TACGATCAAATTTTTAATAGACTTTGTTACTTAAACTAAAAGTATTAGTCTGTATTAG
TCAGCTCAAGTTGGGATTCACACCTGTAATCCCAACACCTAGGGGGGC

Sequence 615

CCGCGGTGGCGGCCGAGGTACACTGTGTAAGTGGTCAAAGATAGACATGGTTTTTTTAC
AAGGAAATTTGCTGAAGTGTAAATTATAACACGAAGAGATGGGAGGGAGGGGTAAACACC
TAAATGTCTAACACAGAGAATGGTTCTCTGTTGATACAAAATTATGATACATCAAAAA
GAACAACAATCAAATCTCTGAGAATCCCATTACAGTTAAAAGGAGCTCCAGCCAGGT
GCGGTGGCTCACGCCTGTAATCACAGCACTTTGGGAGGCCGAGTCGGGTGGATCACGAAG

TABLE 1
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TCAAGAGATTGAGACTACCCTGGCCAACACTGTAAAACCCCGTNTCTACTAAAATACAAA
AATTAGCTGGGCCGTGG

Sequence 616

TTAGGGCGAATTGGAGCTCACCGCGGTGGCGGCCGAGGTAATAACTGCCAATGCCA
TCTGCCTGTGGCCTTCTCAAGTTTGTCTGCACCTGTGGTTATCCTGACTTCAAACCCGGG
GAGACAGAGGCTAGAAGAGGCAGACAGCTCTTGTGTATTCTCCTGTCCAGTGCAAAGAAC
ATCTGGAACCTCTGAGCCCTAACCTTAAATGCAAGACCTNATCTGCAGGTGTTCTNATCC
TTTAGCCCTCAGTGATGTAAGCAACAAACGTCACCCANCTCCTGGGGCACACTTNACT
CCAGATGAGCTTGTCTGGATTGTCAGGGAGCCTGGCTCCC

Sequence 617

TAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGGCAGGTACATCACCTGCTGA
GGGACATCCAGGACAAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCC
GCTTCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGT
TCTCCTCCAATTTGGACCCAGCCTGGTGGAGCAAGCTTTCTAGATAAGACCCTGAATG
CCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGG
AGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTNTACCTGAATTTCA
CCATCACCAACCTACCATATTTCCAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGA
GGAACAAAAGGAATATTGAGGATGCGCTCAACCAACTCTTCCGAAACAGC

Sequence 618

GCCGGGCAGGTACAGATGGGGTTNCACCGTGTTAGCCAGGATGGTCTCGANTTCCTGACC
TCATNANGCATCCANCTCGGCCTCCCAAANTGCTGGAAATTACAAGGGCGTTGAGCCAC
CCGACCTGGGCCAGAATCTTACATATTTCTTAAACATCATTAAATATATATTGATTTT
TACTTTTTTTTTGAATAGGGGTCTTGCTATGTTGCCAGGCTTGGTTTTGAACCTCTGG
CCTTNANGAGATCCTCCCGCTCTCAAACCTCTCAAAGCAATGGGTA

Sequence 619

AGGTACCCCATTTTATGCCATAAGTCAGGTTTCTCCCTCAATAGCCCTTTGGAACCTCTCA
AGGTCCAGAGTGGCATCAAACCAACTGACACATGAGTTGATACATCATGTGCTGCCAACA
GAGAAATTAGTCTGTGCCAAACTCAGCACAACTCCTGCAGTTCAAACCAGAATTTCAAAA

Sequence 620

ACCAAGATTTGAATCATGCTTTCAAAGCTAATGTGAAGTTAGACATATTTGGTTTCATA
ATCACAGAATTTTAAAAACACCAGGTCTGCAATATTCAGAAATCACCATTAAACGCTCTCT
TGACACATACAATCAATTTCACTTTAGATCGCTGATTTTCTTAACAACTGATTTAGTTAT
TTCTGAATACTGCTAGAAAAATCAAAATCTACAATTAAT

Sequence 621

AGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAAAGGCAGT
CAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTG
GTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTGGTGGAGCAAGTNTTT
CTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGAC
ATCCATGTGACAGAAATGGAGTCATNAGTTTATCAACCAACAAGCAGCTCCAGCACCCAG
CACTTCTACCTGAATTTACCATCACCAACCTACCATATTTCCAGGACAAAAGCCCAGCC
AGGCACCACCAATTACCAGAGGAACAAAAGGAAT

Sequence 622

NCCGGGCAGGTAAGTGCACACATCAAGAGAAAGTTACCATTGAGAGG
TGCAGTGAGTTCCCTTGTCCACAGNGGAAATCTGGAGACTGGTCAGAGGTAAGATGGGAG
GGCTGTTATTTCCCTAGGTCATCTCTTACATTCTAGTTCTGGTGCTCTCTATCTGTTTA
AGACAAACCCTTGNGCACCTTTCTCCCACCCCTCCCTTTCTCCCTTGTCTCCCTTGAGAA
AACAACCTNCAAGTTCTCTGCCTGCACCATGACTGTGATACGCGGGGGCAGTTCCGGCGGT
CCGCGGGTCTGTCTCTTGCTTCA

Sequence 623

AGGTACAAGCTGTGCACTGCAAGGTAACCACGTGGCCAGAGGCACATCCCTCCCTCACAT

TABLE 1
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ATACTGAGTGGTGTAATGCAGTCACCTTGTCTGTCATCTGGCAAGAGGTGATCGATGGACACAA
ACTCCTCCCGGAACTGCCCCCTCCAGCGAGCTCACTCTGAGGTTATCTGAACTCACATAGC
TTGGGAAACCCAGCTGGGCACGGGCAACATTTGCGTAGTGACCCTTCCAGTCATCGGAGC
ACATGGTCTTCCACGAAGCAGCTGTGAACACCTGGAGCACGGCATTCTGACCACTCACCC
GGACACAGCGGTACCTGCCCGG

Sequence 624

CGGGCAGGTACTTTGCAAGACACGCCTGGCTACGAACAACATGGGACAATGGGCAGCCTC
GCTGCACTGNACAGAGGAAAGGAAAGAGGCCCTTGACGCCACTGCCTGGGAAGGAGCAGCA
CATTCTGCATTAACCAGGCATGCCTCACTCACTGCAATCCCCAAACAAGCCCAACTCTCC
GTGTTGATTATTCTTACCATACTCCACCAGAAAGCAGCATGATTTTCTGTCCTCAAATAC
TTCAGATTCCAAGAGAACTGCACCTTCTAGAGTCTCTACTGATAACCTCAGNCACTTACC
CACTTGAAGCATNAGCACACACTTAAAAAGGAAA

Sequence 625

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATATTCTTCCAACCTTTCT
TCTGTGCATAATCATCTAGGTGTGGTGCTTACATTTTCTTTGGCAGTGTTATCTTAGTA
TCTTCCAGCATGGTTTTCTCACCTGATACTGTAACCATACTCCATATCCTCAAATGTGT
TGTTTTCTAAAATAACTTTTTTTTTCTTTTTTTAGAGACGGAGTCTCACTTGGCCAGGTG
CGGTGGTTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGTGGATCACGAGGT
CAGGAGTTCGATGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCAGGTGTGGTGGC
GCACGCCTGTGATCCCAGCTACTCGGGAGGCTGACGCAGGAGAATCTCTTGAACCTGGGA
GGTGGAGGTGCGAGTGAGCCGTGATCGCGCCGCTGCACTGCAGCCTGGGTGACAGAGTGA
GACTCTGTCTCAAAAAAAAAAAAAA

Sequence 626

AGGTACGCGGGACATACTCCCTAGGTGTCTGTGAGGATGGTGGAGGGGATTTTCTCCATG
CCGGGAGGCTTCCCTGGAGCAGGTGCTGCCTCTCGTGACTCTTGAAAGATGCTTGTGAATA
AAGCATACTGGGAGCTGAGCTGCTGTTTAGTAATTAATAATCCTTTCCATTGTTTAGAGC
TCAGCACCTTTGTGCATTATATTACGCATTCAATTTTCGTATCATTGTTGAATTTCTCAC
TTCTGCTACTGCAATGTATGTCTACAGCTGACAAGTCTTCCCTGGGAGCCCTACGTAGCT
CTTTTTTTCTTTTCTTTCTTTTTTTTTTTGAGACGGAATCTTGCTCTGTCACCCAGGCT
GGAGTGCAGTGGCGCAATCTCGGCTCACTGTAAGCTCCACCTCCCGGGTTCACGCCATTC
TCCTGCCTCAGCCTCTTGAGTAGCTGGGACTACAGGGTGCCCAACCACACGCCTGGNTAC
TTTTTTTTGGTAT

Sequence 627

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTCTGCCATGAAGGT
TCTGGGGTGGAGAGGGAAGCAATGTATATCCTACCCATGGTGATTGGTCCGATGGAAGTC
ACATCCTGATGGGAAAAAAGGACTGAGCCAGAGTGGAAGTGTCTAAACCAAAATGGGATAA
ACAAGCATGGCATGGAGCCAAAACAAATGGCTAAGTCAGAGGTCCTAATGCAGAAGGCTG
GACAACTAGGATGGTGGGGAAAGACATGAGCTTGAAGGACTTCCCAAGATAAAGCAGAAC
TAACCAGAAGAGCCTGTTATAGATTCAATTGGGGGAGTTTGGGGGGTTTGTGCAGGGTG
CATCAAAAAGCACTCGCATGGAATAAACATATCTTGACAGGAACATATGACAGGTAATT
GAATAGTTTGATTTGAACTATGTAAAGACATGATCCTGATGGTAGAAGGATGGTACCTGC
CCG

Sequence 628

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TTGGGACCGAGTCTCACTCTGTGCGCCAGGCTAGAGTGCCATGGCGCAATCTTGGTTCAC
GCAACCTCCACCTGCTGGGTCAAGCGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGA
TTACAGGCCCTNACCACCACGCCAGCTAATTTTTGTATTTAGNAAAGATGGGGTTTCAC
TGTGTTGGCCAGGCTGGTCTCGATCTTTTGACCTTGAACCTTTNACATAAACTTTACAT
TTCCATGACAAAGTTTTAGCAGTAACTTCCAAATTGGTCTTATTCAACTCCAACATTAA
CTTTGTATGTACCTGCCCCG

Sequence 629

TABLE 1
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CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATGATCC
AGGATGTGATGGGATCTTAGGGCTTGGCTGGAAGGTTTCTCCAGTCAGCCATCTAGCAGA
GCTGCAGATCTGGGCTGGGCTGTTGGCTAAAGTGCTCTTACAGACACCTCATTGGGCTC
TTCCTTCAGCTTCTTCACTTATTTCTTACTCAGTCACTACTCAGCTCCTTGTCCATGTGT
CCTTGAAGCCATCCTAGGTCTTATTCTGATTCTGAATTCCTCAGTCACCCATAAGCTTCT
CCTTACCCCGGGAGTCAGTGGGTGTGTGTTCCAGGTGGACTTAACCATTCTTCTCCTTT
ATGATCCTTTCCCTTGGGTGGACAAGTGTGATTTGGTTGTAAGGCCATTTTCAAGTTGC
CTATACATTGATAAAAGAAATCCCACTAACGGAAGTAGACTGCATGCCAAATTCAGTGT
CTTTCTCCAGGGGCCAAGGTTGGACCCANAAGTGCATGGG

Sequence 630

CCCCGCGGTGGCGGCCGCCCGGGCAGGTACATTATTGCTTCCTGGGAGAGCTGACCATGA
GTCAATTGGCCCAATAANTTATNAAATGAAAACCGGCCATCATCTGCATCTTATGAGT
GCACGTCATCAGAGATGTCCACTCCAGTTACAAGAAAGTCTGAGGGCTTTCTTGGAGCC
TGANGGGCGCTGGAGGTGAGACCTGGAGGTGAGCAGGAGTAACTAGGATGAGGGACNGG
CGCAGCATACAGGAAAAGCTGCCTGGGGGAGAAAAGGACCAACAGCAAAGACTGAGAAAAA
AATGCTGTTGTGACCAGGGTTCAGAGCGGGCATGGAGGACTGAGGGTTCAGAGCGGGCAT
GGAGGACTGAGGGTTCAGAGCGGGCATGGAGGACTGAGGGTTCAGAGCGGGCATGGAGG

Sequence 631

CCGGGCAGGGTACTAAGGACAAAAAGACATTTATTCTCTTTGACCCTTGCTGCCAGNACA
GAAAATGACTTCACCCAAGGACACAGCACTTGCGGGTGGCCTTCTCCACCTCCAGCTATT
GCTTGGTTTCAGGTGACCACTCCCTTTCTCTTCTCAGGCCTATGGGTGGTAACAAGCTCC
CATCCACTGCTAGTCTTAGACATCTTTACTTTCTTGATTGATNCCCTTGACTCTGCCCA
CATCTTTTAAAAATATCCCATATTAACCTTTTACACCCCTTTGAATGTGTCTGCTTCT
GCTGGGACCATGACTAGTCTCTTCTAGTNGGAATCCATATCACCTTCTGTGATGTAGTCT
CCAAGTCAGGCAGNCTCATTTCAACTACAGNCTTTCTTTATGCTTCTCTTTTCTTTCT
GGACTCTTACCTTTCTTTTATTTCTTACTCAGCAACAGTGTCTGCCCATTAATAATGCACC
TTTGCGGNGGNGGTTNGGTATCTTATCTCTCTTATTCTTCTTCTTCTTCTTCTTCT
ACTGGCATTGCATGGGAATTTTGTT

Sequence 632

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGACATACTCCC
TAGGTGTCTGTGAGGATGGTGGAGGGGATTTTCTCCATGCCGGGAGGCTTCTGGAGCAG
GTGCTGCCTCTCGTGACTCTTGAAAGATGCTTGTGAATAAAGCATACTGGGAGCTGAGCT
GCTGTTTAGTAATTAATAATCCTTTCCATTGTTTAGAGCTCAGCACCTTGTGCATTCAT
ATTACGCATTCATTTTCGTATCATTGTTGAATTTCTCACTTCTGCTACTGCAATGTATGT
CTACAGCTGACAAGTCTTCTTGGGAGCCCTACGTAGCTCTTTTTTTTCTTTTCTTTCTT
TTTTTTTTTGAGACGGAATCTTGCTCTGTACCCAGGCTGGAGTGCAGTGGCGCAATCTC
GGCTCACTGTAAGCTCCACCTCCCGGGTTCACGCCATTCTCCTGCCTCAGCCTCTTGAGT
AGCTGGGACTACAGGTGCCACCACCACCCCTGGCTACTTTTTT

Sequence 633

GCCGAGGTACTTCCCTGAGCAGTCGAAGTGGATGCCCAGACCAATGGCCAGNGCTAATAT
NCAANGCAATGATCCCAATGACGATGATTGAAAAAACTTCAATGGCAGCAGTGACAGGA
TCTGTGCAGCAACAGCATCTGCATCTGGTGCAACAGGACTTATTTTCAAATCATCAAGGC
CAAAAAGCGATCGGAATGAGAAGGGGGCTTCAACAGCAGGCGGATCATTTTCCCCCATGG
TGACTATTTCAAGACCTCTGACATCCGGCTCCGCCTCCACCTCTACCTCATAATTCCCGA
GTCCCAAAAATGTAGATGGCACCACGGAAGAGATAGTAGGCCACAGTGTTACTGGCTTCC
CATAAACACAGCCCTTTCTTGCTCACACGGGCATGACCTAATTAAGAACCCCGCGGTAC
CTGCCCGGGCGGC

Sequence 634

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAAAGTGA
AATCCCTAAGTCAAAGTGTGGCTTATAAGCAGAAATCCTGGTTAGTATTTCAAAGTTCTC
TTAGCGTTTTCTCCTGCGACTTAAAGACTTAAACAGTGAAAAGACATGGACGTAAGAC

TABLE 1
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TCCAAACAAAATACATTTCTTTGAACTAAATAGCTCTTAAGTAAGAAAAATTTCTATA
GATCTTCAAATCATCCCCTAAGCAAAATATTCTCTAATTAAGTATTTCTGTATTTCCATC
TATGTTCTTCCCAGGCTTGGGGCTGTTGATCAGACCTATTTTAGGGGTAAAGTTTCTAGG
GGTCATAGAAGATACAGATTTTGACCTGCTTAATGTCAAGAGGTTGCACGGTTGATTTGT
CCAGTTGTGAATCTATGAATGAAGCTTTTGTCTAAATAAAACGATATCCCCTCTGGC
TGCTGTGAGCACCGGGAGACTTGTTTCGGCAGTGCCTGGGTGCTGGGGCAGGGCCCCG

Sequence 635

TGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGGGAGTAAATAAAAGGGTGC
GATTTTGTAGGATTCTAAGGAAGAGGCAGTGTGCTCTGTCCACAGGCTGCAAGGTGAGAA
CCTAAAAGAATGAGATATATCCCATTTTGAATGGCAATCAAAAAGAGGATCTCTCTGT
CAAGTCTTTACATTAATGCTGAGTAACAATCTCAAAAGCCTGCCATTCCCCTTTAGACA
CATGTGGCAAAGCAGAACTGAAGGAATGGCCAAGGGGCTTGAACAAGTAGAGAGACCGA
CAGTCTTTCAAATTTAGGGAACCCAGATACATTTTGGGGGAGCCACTGTTTTCCCAT
TTCTGAAAAGTTCTTGCAGGTATAAGAAATAGGAATAGAAATTGAATAGGTTCTGGAGC
CAGGGCTACAAAGGCCCCAGCTCTGATCTGTAGACTGAAAACACACATCAGATGAAAT
TATATNCACAAAAGGAGAGTCTTAAAAACAGCCATTTCCGTCCCT

Sequence 636

AAGAGCACGTATAGCATGGGGGAAAGAACCTAAATGTCTCTCTGTCTGTGAGCTGGTGA
AAAACCCAGCATGAGAACGCAGTGTGAGGTGTGGGACTCCTTCTGCCCTGCAGTGGGTG
TTACGGGCGGTGTGCCCTGGCGAGCAAGCTTTGATTCTTGGTTCTTTGAGCTCGTTTCAG
AGGCTGAGTCCCCACATCAGCTTTAGTTCTTGGACTTCCCTGTATTAAGCAAGAATTAGG
AGAATGGCTGTCCCTGCAGGCGCCTCCCGTAAATCCTGAGCTCTCTGGCGCAATCTGAAA
CTTCTCTTCTGTTTTCTTTGGCTGTATCAGCCGAACCAGGAGAGGCC

Sequence 637

CCGGGCAGGTACCAGGAGAGATCTGAGACANGGTATGAAGTAAAAGATTTAAGATTGGAA
GTGGAGAGTGTGATGGACAGTGCCCTTCGGATGGGTGACTTCTGGAATTCTTGTTAGGC
ACAGCGGAGGTTGGTCTGTGGGAAAGGAAGAATATTTCCGGGGTGAGGAGACTTCGGGG
TGTGGGCCGGGTGCCCTTTTAAATTTGGAATGGTGTATACAATAGGGAAAGGATGTTAAC
TTTGCAGCAGCGGGGATGGTGAATATAACCTGATAGGGACCCCTTCATTTTGTGGAAAG
GGGAGGAGGGGTGTGCTACCCAGACCCAGTCTCCTGGNTGTAAGGGTAAGAAAGTGAATT
GGGAAGAATCCTCAGG

Sequence 638

CCGGGCAGGTACCTGGACTCCTAAGCCTCAGGGATTTACTGAAACACCATTCTATTTTAT
AATAATCCTTAACCAAGAATTTTAAGGATCTTAAATTTTTCTGTGGTTCTATTGTTATCT
GATATATAGATGATCTGCTGCCATATCCTAAAGAGCAGATGAGGCGGGGTGTAGTGGCTC
ACGCCTGTAATCCCAGCACTTTGGGAGGCAGACGAAGGTGGATCACCTAAGGTCAGGAGT
TTGAGACCAGCCTGGCCAACATGGTGAACCCCATCTCTACTAAAAATACAAAAATTAGC
TGGGTGTGGTGGTGGGCACCTGTAATCCAGCTACTAGGAAGGATGAGGCAGGAGAATCA
CTTGAACCCAGGAGGCGGAGGTTGCAGTGAGCTGA

Sequence 639

AGGTACCACTTAACAAGGGTTCTCAGCTGTGNGGNCACTGGACCACTGGGATATGCTGAG
CTATTGCTTAAACACTGACTTAAATAAAACAAATATTTTAAATAATGAGAATGCTACTGT
AATTAGAAGGCAATCATTTCAAAGTCTANATGGAGGCCAGGGGCGGTGGCTCATGCCTGT
AATCCCAGCACTTTGGGAGGCCGAGGTGGGTGGATCACATGAGGTCAGGAGTTTGAGACC
AGCCTGGCCAGTATGGTGAACCTCCATCTCTACTAAAAATACAAAAATTAGCCAGGCGTG
GTGGTGTGCACCTGTAATCCACTGAGGCAGGAGAATCACTTGAACCCGGAAGTGGAGGT
TACAGTTGAGCTGAGATAGCACT

Sequence 640

AGGTACAAAGGTTCAAGTGGTGAGAAGAGGGAGCAAGGCCTTTGGAATAATGAACTCCAGT
TGTTCTCATAGGTGCAGCAGAAATAGCGAGAGGTCAGGATTATGGAGATTGGTAAGGCG
AGATCATCCAAGGGCCTTTTGCTTGGTAAGCCATTTTACTTTAATCTTGAGTGCCATAGG

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GATTCATTGACGGATTGATACAGGGAAATGAAATGATTTTTTTTTTTTTGGTTGGGGGA
GACAAGAGTCTTGCTCTGTTGCCAGGCTGGAGTGCAGTGGCACAACGTCGGTTCAGTGC
AGTGTCTGCCTCCAGGTTCAAGCAATTCTCATGCCTCAGCCTACCTTGAGCTGGGATT
ACAGGTGCACACCACACACCCAGCTATTTTTTA

Sequence 641

AGGTACAAAGGTTCACTGGTGAGAAGAGGGAGCANGGCCCTTGAATAATGAACTCCAGT
TGTTCTCATAGGTGCAGCAGAAATAGCGAGAGGTCAGGATTATGGAGATTGGTAAGGCG
AGATCATCCAAGGGCCTTTTGCTTGTAAGCCATTTACTTTAATCTTGAGTGCCATAGG
GATTCATTGACGGATTGATACAGGGAAATGAAATGATTTTTTTTTTTTTGGTTGGGGGA
GACAAGAGTCTTGCTCTGTTGCCAGGCTGGAGTGCAGTGGCAACAACGTCGGTTCAGTGC
AGTGTCTGCCTCCAGGTTCAAGCAATTCTCATGCCTCAGCCTACCTTGAGCTGGGATT
ACAGGTGCACACCACACACCCAGCTATTTTTTATAT

Sequence 642

AGGTACCTCGTTTCTGAGGATCAANACCTNAGNGACCGNGTGTGTGTGTGTATTTGTG
TGTGTGTGAGTCCTATTTGGGCCCCGCCTTTCAGCCCTGTCTGCAGC

Sequence 643

AGGTACTTTCAATTTCTGTGGGATAAACTCCAGCTCCAGTTTCAGAACCCACTCTAATTG
GTTTAAGCCAGGAAAGGGAGAGGGACATGTTGCTGGGAGGCCCCCATCTGGGGCCTGAGC
TTGGAATCAAATCAGAGGAAGGCAACACATGTAAAGTGCTGAGAGTGAAGGATGAAGAG
AGCTAGGGCTTTGTGCCATCACTCGTGCTCTGGACATAAGTGGAGCTGGGATTCAGCATT
ACCTGCCCCGTGTACCTGCCC

Sequence 644

CGGGCAGGTACTAGTCCAGGTGTGAGATGAAGGGGGCCTGGATGAAGCAGAGGGTGAGAG
ACAAGGAAGATTCTGAGGACCTTGTGGCTAGATGTGGGGGTTAAGTCAGGTTCAACTCCT
AGGCTGGATGAATTGGCAGATGGCACATGAAGTACAAGAGAATGGAAGGCAGAACCTATT
TTGTGGGCAAAAAATAAATTACATTTTGCAATACTGAATTGAGGGGCTTCTTGGAAGTCC
AGGTGTAGATGTCTTACAAAAATAGAATATTCTGGGCTGGGTGCAGTGGCTCACCCCTGT
AATCCCAGCACTTTGGGAGGCCAAGGTAGGGGGATCACCTGAGGTCAGGAGTTCAGAGCC
AGCCTG

Sequence 645

GGNCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCAC
CAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGA
CCCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCT
GGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCA
ACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACC
ATATTCCCAGGACAAAGCCCAGCCAGGCACC

Sequence 646

CCGGGCAGGTACAGGGGCTTGGGGGCTTGGCCAGGCTCTTCTCCATCCATGCCACGGGGC
TGACAGCCACAGATCTGGAAGCTCAGGCCTAGGAGTGCAGGCTCCGTAAAGCCCTGTGTC
CAACATCCTGACTCCTAGGGGTGCCAAGATTTGAGTGGCCACTTTCACCTCTGGAGGAA
GTAATACCTAAGGCGCTGATAGAAATAGAACTTCCGCTGCCAGGCAAGGTGGCTCACACC
TGTAATCCTAGCACTTTGGGCAGCCTCAACGCAGGTGGATCACTTGAGGTCAGGAGTTG
AGACTAGCCTGGCCCAACATGGTGAAACCCTGTCTCTACTAAAAATACAAAAATTA

Sequence 647

AGGTACNTGTTTCAGTCACTGGGCTGANNTGGNNCACAGCACAACTTCATAGCCACTGT
ATGAAGAAGTANAAGACCCAGACTCTTGCTTTATGTTGGTATCAAAAGTCATTTAGAGT
CAGGCTGATCACTCCCAAGTAACCCACTGACTTCTTTACTCCAGCTCTGTCTGTCTGNT
GACTCANAANGTNACACTTNATTTTCTCCATTGCTGATATAATCATATCTGCAACATAAA
AGTGGGCATTTTCTTTTCTACATCAACAGGCAGCACAAATACCTCTGGTGAGAAGGAAT
TCNAAGAAATGGTTNTTCTACTGACTTGAACAGCACCTTCATCAGCAGCAGATGTCAGAT
GGGAAGGC

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Sequence 648

CCGGGCAGGTACCACTAGATTGCCTCCCTGTGCCTGGGCAATTCAGAAAATGGTGGTTT
TCCTTTTCGTTTCCATCTTTTTTAAGACTTAAAAAGTATCTGCTCTCATTTTCTCCTAGCG
GCCTCCATGCCTTGACTCAAAAAATGCTGTCTTAGTTGACAGCCTTGAAATGAGTATGAC
CCTAGCTCTAGTTGGGTGGAAATCACCTCGCATAGAAATAGACCTGGAGGGCCGGGCACG
GTGGCTCACTCCTATAATCCCAGCACTTTGGGAGGCCAGGTGGGTGGATCCCGAGGTCA
GGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAAAAAAAAAA
AAA

Sequence 649

AGGTACTAGTATGAAGGAAATAATATCCACACACTGATACTGGTCCAGCNGAAACCAAGA
CCGCTCCTGGTGCATTAACCTTTTAACAGAGCANGGACTCANTTCTCTGAAAATAGTGCCA
TAAACATGTGCTCCCAGAAGAATAAATATTTGGCTTGCTAGAATTTCTGCNGCTTTTNT
GTAAAAGTTGATTATTCGGTATTAAAGAGGAGTATCAAATATGNGTNATGNANNAAAAA
CTTGGAANAGTANNGGACCNNGGCTTATCTCNTCATTTTCATTCTGCACACTNCAANTC
ANTCNTTTCCCATCTTNTTCCCNTCTCTGNAATTTATCACCCCTCCCCCTCT

Sequence 650

GGCGATGGACTCCACCGCGGTGGCGGCCGAGGTACTTACCACAGAGAAAAGCCAATAATC
ACAATATATGTTGTCTTACTGACCCATAACCCATTTTCTGAGGGTGGCAGGCATTGTGCC
CCCCTGTGAGGTGGGACTATATACATATACAAAGGAGGTGTTTAACTGGGTGGCATGTC
TCAGGGAGATGTAANGACTTACCTGCATATCCTGGCAGTNTTGAAATGATAGTGAAGTGT
TCNTANGGCNTCCNCTTGATGGCATAGNCNAAACACCAGNATTTTCTTGGNAGAATGATT
CGGNAAATGCTACATAGAAGAAATGGNTGGTGAGCTNTTACTGTGACTGTGCCCATAGTA
AGTCATCCTGGACCCTCTGAATCTTATCCAC

Sequence 651

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGTTTTTTTTTTTTTTTTTTT
TTTTATGATATTCATCTATGAACCAATTTAATTTTAAATTAATAAATAAAGGCAATCTGATCTG
GCAGATGATTTGGGTCTAGAAAGAAATTGTGCCAGGCATGGNGGCTCATGCCTGTAATC
CCAGCACTTTGGGAGGCTGAGGNGGGAGAAACCTGTNAGCTCAGGAATTGGAGACCAACC
CTGGNAACGTAACAAGACTTNTTTTTTACAATATTAATAAATAAATAAAGGCAATCTGATCTG
GNGGTTACACAGCTGAATCCCAGCACTTTGGGAGGCCACACAGGTGGATCATNAGGT
CAGGAGTTCCAGGACCTGGCCAACGTGGGGAACCCCTGCCTNTACTAAAAACACAAA
AATTATCTTTGCTTTGNTGGCGGGAGGCTNTAATCCAGCTTCTAGGGAGGTTGAGGCAGG
AAAATCNCTTGAATCTTGAAAGCAAAANTTNCAATNAGCCNNGTCAACCATTTGCCTT
CCAANCTGGGCAACAAGAGCCAAATTTNTTNAAAAAAAAAAAAAAAAAAGGGCCGGCCTTGG
GGGTNTTCCNGGAACCCACNCNTTNTGAGGCCCCACCGGTGGTNTAGGGNCNGAGTT
CAAAACNNCCTTCCACTTTTNGAACCCGTTTTTTAAATTCAAAAATTNCTGGCTGGATA
AATCCGNAGCCCCTTCTTGNNGGTGNGGNNGGANTNTTCCCNCAANNGGGGTGGGTNA
NNNCCGAAANCCCTTATTTCCCCTNTGNAAGGGNCTTTTCNAAAAAAAAAAAAANA

Sequence 652

CCCGCGGTGGCGGCCCGCCCGGGCAGGTACAGGTAAGGCAGAAGGAAGGAAGGGCAAAGA
AACAATTCCAGGGCCCTGGTTTCTGGGATGACAGGCTTCCCAACACTCATGCCAGGACTA
TTTTCCACCTCGGTTCACTATGGGTTTTTTTCTTTTTTTTAAATATAATGAATTTTAA
AATGTGTGTTTGTGCCCAGATTATCCANAAAGAGTTGAAGGGAGGAAAGGNGTGCNTG
GGGTGCNTGGGANTTTTANCCCTCTNTCCACCCNGATTTCTAAGTTGGGGGGGGCATCCA
AACAGCTTCACCANGTGCCCAGGCTNTTTTTTGNNTTCCAAAGCCAACCTTCCAGGGC
ANGGANGGGTGAAGNTTAGGAGGGCAAAGGTTAGCCTGGAGGCTGCAATTAACAAGAATC
AAANTGGGGTTTAAAGGATTCTCACACCCAGTTTGCTAATTTAGCTGGTCTTGTAGAGG
TGACACCTAGTAGGACAACATGGNTTTTNGGGCAGGGCTGGGGTGCTGGTCTCTGCTTTC
TAGGGTAGAAAGGAATCATACATTGAAAATGCTTAAATCGATGGAATGATTATGTTCT
NATCTTTTCATCTTTTTCTGNGTGGCTGGTTTTCTGCCANCCTTACTTGGACAAGCACCAT
TCTANACCTTTTCTNAGGCATNTCCNAGAANGNGAAGTNGAAAGGAAGAAAAAACTT

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ATTTTTTNNGNCCAAAAATTNGGCCAAAAA

Sequence 653

TCCACCGCGGTGGCGGCCCGAGGTACGCGGGGGCCCTTCTATCTCAGGATGTTTGCACCT
GCTATTTCCCTTTCTTAAAGGCTCATCCCTAGATATTTGCATGACTGGCTTCCTAATTTN
NTGTAAGCTTTTGGCTGAGAAGTTACTTTACCAACTGTCATTGAGGTTTTCCCTGAACATC
TTAGGTAAGATAACAAGCTCCCTCCTTTCTTCTCACTTCTTGGTATTCCTTATCTC
GTAACTTTTTTTTTNGGGGGGATNGANACTTNCGTNTTGNTTTTGTTGGCCAAGCTTGGA
GTGCANNGGGTGCANTCTTGGCTTNACTGAAACCTCCACCTCCCGGGTTTAAAGCGATTCT
TTCTGCCTTNAAGCTNCCGAGTAGCTGGGACTACGGGCAAGTGCCACCACACCCAGCTAA
TTTTTTGTATTTTAAAGTAGAGGTGGGGTTCACTGTGTTAGGATGGTCTCTATCTCCTGA
CCTTTTGGGCCACCCACCTCGGCCTCCAAAGTGCTGGGATTATAGGTGTGAGCCAGTGCN
CCCGGCCTCTCATAATTTTCTTAAATT

Sequence 654

CNAATTGGAGCTCCCCGCGGTGGCGGTGAGTTNGTCTTAGAGATACCCATGAGGTACCT
ACTCAAAATGGGGCTCAGAGTAGCCTTGTCCTTCTTGTCCAGTGGGCGCAGCTACAGT
CTNNCTGGNNNGGAGTGACTGGAGGCTGTCCACGTCCTTCACTGAGGCATTTCATG
TGCACCCAGCACACTTTCTAGCTTTATTTGCCTGGAGGGGAAGATTCTCCAGAACCTTGT
TAAGATGCACAGNGNGGGCCCTTGGACTGGCAAGTGTCCTTNGGCAGTCCCTNGGAGC
TTGTTAGGAATGCAAAATNTTAAGCTTCTTCTACTGNATCTAAAGGTTGANTTTAAACA
AGATCCAGCTTGTTTCGTTTACATGAAAGTTGAGGCACACTGCTCTAGAAAGTTCTTTT
ATCTTTACTGGCCACCAAAGTAATCAAACCTTTGNGAAGTACCCTCGGNCCGCTCTAGAA
CTAGTG

Sequence 655

GCTCCCCGCGGTGGCGGCCCGCGGGCAGGTACGCGGGATATGAAGTGAGGTTAAGTCAGA
TGGAATGGCAGTGGACTACTGTTTTGGTTAATAAATCGAGATACCCTTAAGAGTTGTGN
NCTGAACATACTGTCTTTCTTTCCCGAGTTCCATGTCACAGCACCTGCCTAATAATAGGT
GCTCGAAAAACATCTGTTGAATGAAATGAATCTTTTGTGTCAGTAGGGCAAAGAAGGG
TAGAGAGGAACNACTTTGCCAAGCTGATNTGTAATGTTGCAAAAGGGTTTNGGCCAGAA
AATTCNANAACCCATTNGAGAGGCAATACATGTTAAGGGACCTNTAAGATGTTTCACAA
CCTTGGAATAATTAAGAAAGAACTTTCTACTGNTTACTTATTTCCCACTCCTGGCTGCC
CCTTTGGGTGGACTGCCTNCTGTTGGAGGGAATACTGNGTGAGACACATCTTTTAGTAA
AACAGAAATGTGAAACCAACTTGCAGAAATCACAAGCACACTGTTACCAAATAGGTCTTG
ACTGGCTCCCTTNGTGGGGGACAAATGTTTTGATAATGTCTGTGAGTAGATTGAGTCCC
TATTTCTTTTAAAGACTTGATTTTAAAGAATACTGTTCTTTTTTGGCCAGCATCGCAAN
GAAGTTTTCTTTAACTTTTGGGCCAAAAA

Sequence 656

CGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACAGGATGTTTTCTAAATTTTAAGT
CAAATTCCTTCTTGACACATACCTATTTTATTTTGTGTTTGGTTCTCATCTCTGTGAACA
GAGCAAAGCATGCAACCATTGTAACACTTTCATTTGTTTTATAAACTCAAGTTCTAGAG
TTGGATTTTCATGATTTGCATAACTCGGCATAGTGTAAGTGCTTGTAGTTTTAAACAGAAA
AAGAGGGAAGAAATGACNATCCANAAAAAAGATCAAATCTTATGACTGTAATTTATTA
AGGNATCCAATGGAATCTTTCCCTTTTCTTTCTTTTTTTTTTTTTTAAAGAGACAAGC
TCAAGTTCCATAAGCTGGGAATGCAGTATCATGATCCATAGTTCACAGCAGCCTTCAACT
CCCTGGGGTTCAAGGNGATCCTAAGAACTTGNNGGCCTCAAGCAGTCCCTCCTGCCTCAGC
CTGCCAAAGTGCTGGGGATTACAAAGCATGAGCCACTGCTCCTAATTCTTAAGAGATA

Sequence 657

GAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCGCGGTGGCTCATGCCTGTGGTCCCAGAAC
TTTGGGAAGCCGAGGCGGGCGGATCACGAGGTGAGGAGATCAGGACCATCCTGGCTAACA
CGGTGAAGCCCCGTCTCTACTGAAATGGAAAAAATTGGCCGGACCGTGGTGGCGGGCGC
CTGTGGTCCCAGGTGGCTGGATACACGGGTGTGCACCACCATACTGGCTGATTCTTGTAT
TTTTGGTAGAGATGGGGNTTGGCCNNGTTGGTCCAGCTGATCTTGAACCTGACCTG

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CCTNNGCCTTCCAAAGTGTTGGGATTACCGGTGTGAGACACTGGCCCCTGGCTATATTTT
ACTATTTGGAAATCACAATGCATCTTAAAATTGATGGCTTCTTGCAACCACTTTCAACCA
GGTGCCTGTCATGATTTAAGTGCTAGCATCAAGGCAGGTTAGTTATGAAGAAATAGAGTG
TGTGTTTATATACTCACACAGTTAGAAATCGACCCTTTTAAAAATTATTTCTTTTGAAA

A

Sequence 658

AGCTCCCCGCGGTGGCGGCCCGCCCGGGCNGGTACCGCGGGATATGAAGTGAGGTTAAGT
CAGATGGAATGGCAGTGGACTACTGTTTTGGTTAATAAATCGAGATACCCTTAAGAGTT
GTGTTCTGAACATACTGTCTTTCTTTCCCCAGTTCCATGTCACAGCACCTGCCTAATAAT
AGGTGCTCGAAAAACATCTGTTGAATGAAATGAATTCTTTGTTTGCAGTAGGGCAAAGA
AGGGTAGAGAGAAANCAACCTNGCACAAGCTGNTTGTNAATGTTGCAAAGGTTTAGGC
CAAGAAAANTTCNAAAACCCATTNGAAAAGCATACATGTTTAGTGGAACCTTGAAAATGT
TTTCACAACCTTGGGAAATAATTTAAAAGTAACTTCTACTGGTTTTACTTATTTCCCACT
CCTGGCTGCCCTCTTGGGGTGGGACTGCCTCCTGTTGGGAGGGGAATACTGTGTGAGGA
CACATCTTTTAGTAAAACAGAAATGTGAAACCNACTTTGCAGAAATCACAAGCACACTGT
TNCCAATTAGCTTGACTGGCTTCCTTCTGGGGGGACAAATGTTTNGATAATGTCTGTCA
GTAGATTAGTTCCCTATTTCTTTTAAAGACTGATATTTAANAATACTGTTTCTTTTT
GCCACCTCGCANTGGAAGTTTTNTTTACTTTTGCCAAAAAAAAAAAA

Sequence 659

CCGCGGTGGCGGCCGAGGTACTGGTAAAGGGATAGTCACATAGATCAATGAAAAAGAACA
GAGAATCTGTGAACAGACCATGCAAAATATGCCTGCCTGGTTTTTCAACAGTGCAAAAG
CAACTCAGCCAACAAAAGACAGCTTTTGGCCAGGCCGAGTGGCTCACTCCTGTAATCCC
AGCACTTTGGGAGGCCCGAGGCGGGTGGATCAACGAGGTCAGGAGATCAAAGACCATCCT
GGCTAATATGATAAAACCCCGTCTCTACTAAAAAACACACACCCCAAATTGCCCGGTG
TGGTGGCAGGTGCCTTTNGTCCCACTNCTTTGGGANGGTTAAGCAAGGGANAATGGCNT
TGAACCCGGAANGGAAANCTTTGCCNTGGGGCCCANATTTNNNCCNTTNNNCTTCANCT
TTGGGTGNANAAAAANCNGGACTTGGTTTCAAAAAAAAAAAAA

Sequence 660

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTTGAAGGTGAGCTTTGAA
GATGCAACATGAATTTGACAGTANAGATGTAGGGAGGAAGGAAGGCAGGACAGGTCAGAC
AGAAGTGCAGGAACAGCCCAGGCCTTTGCAGCCTTCCACACCCCCTACAAGACCTGCC

Sequence 661

ACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCANGGTACGCGGGGACT
TGACTTAACTCTGGGGCCCGGGAGGCCCGCGGTTTTCTCCCCGCTTGCCGGGGTGGTCC
TCTTCCCTTTGTCGGACCAAAGAAGTAAACACTGTGTGGAGAGGGACTGACGTGTTTGA
GGGAAATGGGAATGTACCT

Sequence 662

AGGTACTCCAAGCTCTGAGACCACTCTTCTGCAAAGCCTTCCTGATTCTGCAAAGAACA
GGTAGGCATTTTCATCCTTGGGACCTCACAGCAATTCAGGACACATTTGTGTCCAGCCCT
GCTTGGCTTGGCTGTCTCCATGAATATACACTTTGTAACCTCTGCACCAGGCATCATACC
AAGCACACAGTAGGCACTCCTGTGTTTTTGAATAAGTGACTATATCATCACCACATTTT
AAATGCGGAATATATGAGCTACTAGAAAAGACATAAGGGTAGATTTTACATCTTTATTGT
ATCCTAGATATACAAGTCTATTACTGCCTTTTCCCATGTTCTGTCAACATAGCATAAAGA
ATGTGGATTTACCTGTTAGAAATTGAATAAGCGGCCGCTCTAGAACTAGTG

Sequence 663

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGTTACACGGCAATTT
TNTTAATAACTCCCTTTACTATGTCAGACAAGCTATGTCAAGCGTCTTCTGTATCCTNTA
CGGGGAAAAAAAAAAGTTAACCAGAGCCAAATGCTTGCTTCAAAGATAACTTGCCATC
CTGAAAATATAATTTTACAATTCAATAACACCTTTTGA AAAATAAATAATNTGGCAA
AAATGCCCATGCATTAACAAACCATTTTTTCA GTTTAATCTCTTTATATGTTCAACTTTG
ATGTATTTTAAATAAACAAAGCAAATTCAACTAAAAATACAATCTGGATTCCATAGCCA

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ANGGTTTTATTTACAATTCCTANTAGGAAGGCTTTATTTTTAGCTNTCAAATGGGGNNGG
ACCTATAAGGGAAATTTAAACCGTTTNCNTTGAGTTTTNTNTTNAAGGGGAANGGGGG
AGGANTTCCCAAAATGGGGAAAGGGGAAAAAAGGGGNAANNCCNTTTTGGCCTTTTNN
GGNANTTTTAAAAAAAANTTTNCCCCCCCCGNGNCCCCCAAAAAAANNAANNTTTT
TTNAAAAAAAAAAAAA

Sequence 664

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGCAGGTAAGTCTGCTGGTTTTCTGGT
GTTCTTACAAGCTGCCTAGGTCTCTTTTGTCTCAGCAGTTCAGGATGCAAAAGTTG
CCAGTTCTGTGAGCATTCCAAGTCAGGTAAGACAGAAAGCCATCTCTTAGGCAGTCCCCA
GAAAAGCTGAAAGGTTGGATATACTTTCTACTCTTCTCTTTTCTTCATGAGAGAAAGGCC
ATGTGGGCATTTTCTCCCAATAACACTGAGTTCTGTTGTCTTCTGTGGCTGTGCTGCAG
GTTCTCAGGTGCTGCAGTTAGCTGCT

Sequence 665

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGTAAGATTTCTGAAGGGATCCATAGCC
AAAACATGTTTGAAGGCCACTGGGCTCGCTAACTTCTAAAAGCACCCAGTTCTAGCAGA
CATCCTAAGGAACATTCCAGGAAAATTCCAGCCTAGAACCCTCCTGGGGTCTGACAACT
TAGAGAACAGTGCTGGCTTTGAATGGGCTTGGGGCAGCCTCGAAACCCTCTTCCAGTC
TCCATGCAGGCAGGGGAGCTCCTTAAGCAACACATAGGACATTTCTGGGAGAAATGGGAT
CCCCAACACAATGAACACTATAGATTTTAAATGGTCTATATGGTTAAATACACAAGGCCCC
TCATTTCCAACCCCGCCTGTTTCATCTGATTCATCTGTACCTCGGC

Sequence 666

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTCTCAGACATTCCCCCAGTGGCT
GAAGTGGCATATGAATTATGAAGTTGGATCATTTGGAATGAATGTAAGAGAATTGCCAAG
GGCTCCTCCTACTCCAGAGAGGAAACCTCATCCAGGGCCATGAAGCCACTTCCTCACCAT
CTGTGTGCTGCTTAAGCTAATGCTGCGGGAACCATGGTTCCTTGGGAGGAATCAAGCTGA
CTCTTGGCATGAGATTCTGCTTCCTAGGGTTGAGAGCGGCACTGCCATGGCTTCTCTG
GACGACCCAGGGGAAGTGAGGGAGGGCTTCTCTGCCCTCTGTGCCTGAAGGATCTGCAG
TCTTTATCAGCTTCACTCACATTACGAGGAAGAACAACACTCAGGGGAAGGACCGTGATGT
CAAAGGGCAAATTAAGAGTAAGAGGCGAGGACCTTGCCCTACCCCTGCTTGTGCTTGAGA
GCTTTAACTCACNGGATAGTTCTTATCACTTTTGGTGGTGGCACAGGNATATGATAATTA
GTAGTAGCCAACAGATGACTAGTNGTTGTCTGTGCCAAGCGTTTTAAAAGTTNCCTGTT
ATTAATTTCAATTA

Sequence 667

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACGCGGGGGAAGAG
AAAGCGTGAGGGCTGGGCCTGCGGCGGGCTTTAGGGAGTGGTCCCTGGCTGTGGATAGAT
CTGCTGATGAGTCCAGGCCCGGTCCATTCTCCTCGCGCTGCAAGGATGCTCCTGGGATT
TCGGAGAGGCCGAGGAGTCATTTCAAACACATCATCCATGGCCTTTTACCTGCAGCCAG
CGTTGCTCCGAAGGCAGCTGTGCCACGCACACCTCCTCCCCGCAGCCCCAACCCATCTCC
AGAGAGACCAAGATCTGCTCTGGCAGCAGCCATTCTGGCGACAACATTGAC

Sequence 668

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTCTGATAGGAGAGGGAGGAGGG
CTGGCAGCTGAGTAGCCAGAATCAGGCAGACGGTGGTAGCAGAAGTCAGAGGCCGAGGGGA
ATCAGGGAAAGGAGTTCAACCATGGAGGACCTTGCTGGCCAGGTTAGAGACTGTGGACTT
TTGTCTGGGTGAGACAGGAAGTCACTGGAGGGCTGTGACAGAGCTCTGAGGCTGTGAGGC
ACTGCTCTGTGAGTGCATGAGTGGGGAAAACAGGAGCTTGCTGCACTGGTAGAGACCAC
AGATAATGATGACTTGGACAGAGCAGCTGGGAGAGAACTAGTTCAATAACCCTAACACGC
CTCTCCATTCTGCATTTTCCCTAAAAATGTACCTGCCCG

Sequence 669

CCGCGGTGGCGGCCGAGGTACCTGCCCTATCTTGCTGAATGTTTTATAATCTAATAAAAC
TCAGATAAAGACCCAGATGTCACACCTGAACAGGAAAAGCTGAAAGGAAAAGATAATTA
AATATAAATCAACAGAATCAAGATTTTGAAGACCTAGAAAACCTGAAGGATTACTGAA

TABLE 1
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GCCAAGCAAGAGGAAATGATAGGATTAAGTAAATCTTGTTAGATTTTTTTTTT
TTTTCAAACGGAGTCTCGCTCTGCACCAGGCTGGAGTGCAATGGCGCAATCTTGGCTC
ACTGCAATCTCCATCTCCGGGCTCAAGCAATCCTCCCACCTCAGCCTCCCTAGTAGCTGG
GACCACAGGCATGCGCCACACGCCTGGATAATTTAAATATATACATTTTTGTAGAGA
CAGGGTGCTGCTTTATTGCCAGGCTAGTCTCAAACCTCCTGGCTTCAAGGCATCCTCCTG
CCCAGCTTTCAAAGTGCTGGGATTACTGGTGTGAGCCACTGTGCCGGGACATAAATAG
TTATGCTGTATTGGTTAAGGAATAATGACA

Sequence 670

CCGCGGTGGCGGCCGCCGGGAGGTACGCGGGGAGGTCATGCCCGTGTGAGCCAGGAAA
GGGCTGTGTTTATGGGAAGCCAGTAACACTGTGGCCTACTATCTCTTCCGTGGTGCCATC
TACATTTTTGGGACTCGGGAATTATGAGGTAGAGGTGGAGGCGGAGCCGGATGTCAGAGG
TCCTGAAATAGTCACCATGGGGGAAAATGATCCGCCTGCTGTTGAAGCCCCCTTCTCATT
CCGATCGCTTTTTGGCCTTGATGATTTGAAAATAAGTCCTGTTGCACCAGATGCAGATGC
TGTTGCTGCACAGATCCTGTCACTGCTGCCATTGAAGTTTTTTCCAATCATCGTCAT

Sequence 671

CCGCGGTGGCGGCCGAGGTACAAGGAAGGCCTTAAGACTGCCCCACTCTCCTTGTTTCC
CATCCCCTGTCCCTTCTACTTCTCACATTCACCACTATGTGCCCTAGGACAAAATCAAAT
GTGGAAACATTTGGTCATGTCTACTTTGTCCAAGGGTGGGAGTTCTTGAGGAATTCAAGT
GGGAAC TAGAACAACTTTCTACCCTTTCCTTCCCTTCCCTCCCCACCTCTACCTAGA
AGCCCATCAATCACTTTGAACTTCTTGAGAAAAAAGGAAACAAAAGAAAAAGAAAGGA
GAGGCTGGGTGCGGTGGCTCATGCCTATAATCCCAGCACATTGGGAGGCCAAGGTGGGTG
GATCACTTGAGGTGAGGAGTCGAGACCAGCCTGGCCAAAATGGTGAAAACATGTCTCTAC
TAAAAATACAAAATTCGCTGGGTGTGGTGGTGGGTG

Sequence 672

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGACACTGGTGGGG
GAGAGTCCGACGCGCCTGGCTAGGAGCGCCGACCGCAGGGCCTCTACGGACCTTACTAGA
AAAATGAAACCTGATGAACTCCTATGTTTGACCCAAGTCTACTCAAAGAAGTGGACTGG
AGTCAGAATACAGCTACATTTTCTCCAGCCATTTCCCAACACATCCTGGAGAAGGCTTG
GTTTGAGGCTTCATGCCAGAAAGGGGAATGGGGAATGGCTGCTTAACGGCATGTNTTTT
TT

Sequence 673

CGCGGTGGCGGCCGCCGGGAGGTACACGATGAAACGGGGGTAAGGAAGGAGAAGAAAA
ACATTGAAAGGCATTTGACAGGGTAAGGTTGTATTCCCAGACAACCCTGTCAAGCAGCT
CTGAAGGGATGATGAGCCTGGACTCTCTGGACTCCTAGATTATGAACTCCTGCAGTGGAC
CATGTCCTATTTTTTGAGGCGTTGGGGGGAATTGTCTTACGCAGCACCCAAGCACACTG
CTATGCAATGGACCACAGATAGGAAGCAAGCACTGCATTGGCTCCCCCGCGTACCT

Sequence 674

CCGCGGTGGCGGCCGAGGTACTAAATCATTAAATTCATCCTGAGCTAGTGGCTTTATTAAT
GAGTATCTCACAAATACCACAAAATTAACCTGGCCATGTGGAGCAATATAAAATTATG
GCATTTCTTGGTATGTTTTCTCTTGGCGAGGAGACAACTTGATCTTGTTTCCAGAA
GCATGTTAATTTGCCCTGCTTGAGAATCTCTGCTGCTGAAAGGAGATTATATTCATGG
CAGTCTGTGAATTTTCATTTTATTTCAATTTATTTGAAGACAAGAGTCTCACTCCAG
CCTGGGTGACAAGAGCAAGACTCCCGTCTCAAAT

Sequence 675

ATANGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGGAGGTACCATGAGGGGAGA
ACCGGCAAGGGGTGCCATTCTAGCATCTGGGTGGGAGAGAGGAGGCTGAATGCCAGGGGA
AACTTCTTGAAAAAGTGATGCTGAGTTAGGACAATTTAGTCAATGAGAAGGGATCTGGC
TGTTCTTGGCAGTGGAGACAACATNTTTAAAGGCATGGGAGAATATCTAAAATTTACCTT

Sequence 676

AGATAATAACATCTGATATCCACATGGGGTCTGGAGGNGCAAGCCACCTTCCTTTCATCC

TABLE 1
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CACGGTCTCACAGCAGCCCTGGAAAGAGGCTGCTCTCTGTTGGAGGCTAAGGGCCAGTGT
TGGAAGGAGCTCGGGTGGAAAGTGTGGTCTGCATGAGGGGCTCCCGTGAATAGAGGAGAG
GGGTGGCNGGTACCTGCCCCG

Sequence 677

TACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCANGGTACCTGCCTC
TGCCAGATACCCCTGAGGGAAGAGGATGTTCTATAACCAGGCCGACAGGTTAGCATTGT
GAACACAGTTCTGACGTTGTTGGGAGGGTTGTTGCCAGAAACATCCCCATGCGCTACT
CTTTC AACAGAGGTCAAGAAAGTCCTTTACTTTTGTGCTTTTTTGTGTTGTTGTTGAG
ACGGAGTTTCACTCTTGTTGCCAGGCTGGAGTGCAATGGCGCAATCTCGGCTTACCACA
ACCTCTGCCTCCCAGGTTCAAGCAATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATCA
CAGGTGCCACCACCACGCCTGCTAATTTTCATACCCGCGTACCTCGGCC

Sequence 678

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTCTGTGGTATTTCA
CATAATATTAACCAGCTGTTAGCAATGACTGATATATACTTCCCATGAAAATGATGTAA
GGTCTGAAAGGATTCATTTTGACAATTTTATATCACATATTTATTTACCTTAGGTGGT
TCTTTTTAATGTTTTAATTTGGGACCACACTAATTTCTAACTTGGTAACTCATCTCTTAC
CAAAATTAATACCAAGCCAAGAAAAATGGTTTCATGAATAGAATCTACTAGTCTTTTATA
TCTTATAATGGTAGATCACTGATGAGGTAGAACTCCATAAGAGCTTCNCTCTCACAGTNA
AAGGTTTTGTTGTGCATGGATTACACCTGGTGAAAGTTGGTTAGTATTTGTCTAAGTGG
CTTAAGACAAATTTATTTTGATTTGTATTGTGAATGACTTTGCGAANCACCCAGAATTTT
TNCCGCTTCGTGTGTNGTGTGTGTGTGTGT

Sequence 679

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCCACATAATAGCTC
AGTGCATGCAATTTACAAAGTAATAAGTGAAATGCTCCCATAGTTGACTATAACATTTT
CTCATTTTTCTCTGAATTTGCTTTTTAAAAAACTCTTCCCTTGCCATTCCCTTCCCCAT
TCCAGATTGTAAGTCTTCTTCCAGCTGCATCAGAAGAAGGGGACTTTCCATGTAGGTG
TTATTCTCAGAAAAGGCCAGAAAAGACCAGGTCATGGTGGGGATGATTTGCTCCAAGCAT
AAAAGAGAATTGTGATGGTTCAGGAAGACTGGAAAATAACGAGACTGGAAAGAAATGAGA
AGGGCTTCAGAGGAATGGCACATTGAAATAAAAGGGAAGTGGTAAGAACAGGAACCCAAAG
NGGAATGAANGGGCNCACAGTGGCAGGGATGATTGGATAGACTGTGGAATAAAAAATAATT
TG

Sequence 680

AGGTACAAACTGGCTTCTTCTCTTTGTCAACCAGCACCTGCTTCATAGTCTCTCTGGAGTG
CCAGGAACGGGTCATTTAGATTAAATCTCCCATACCGTTCCCTGGATAAATACCTCCTTCC
TGCGAGCCCGCAGGGCCTCGATGACAAGGTCTCTGGCCTCCAGCTCCCTTCCATCAGCG
TGAGGAGCATCCGCAGCTCGGATTTACTGAGAGTATCCACATCAAACCTCTTTTTTCAGTT
TTACAAGTGGAATTAAGCAGTCCTCCTCCCCGTTTCTCCTTCCATTGCCAGGCTCAGCT
CCTCTACCCCAAGTACCTGCCCCG

Sequence 681

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGGTGGAAAGTGAGGTGGTTT
TATTTCTAGTTACCATTTGCTTAGGCTGTATAGACCTCTGGAATCCCAGCTTATGTGG
AGAAGGTATCCTGTTAGACTTCCCTCCTTTGGTCAGCACTGGGCCTTAACTTCTGGCCCC
TCAAAGCTGCTAAACTGAAGGCCAGGCTTGCCTGGCTTGGCAAAGGACGTCGGGCAGAA
GCAGCTTCTCCTCTCCTCTTGTCTCTGTTTCCCCTCACCATAGGCTTTGGCCTGGGAG
TTTTCTACA

Sequence 682

CGCCCCGGGCAGGTACCTTCTTGGTTGCTGTGACTGTCTGCTAGCACTAAGACTGTCTTA
AGCAGATAGAGGGCAATGGTCTTTGAAGGCAAATGACAAAGCGTGGCCCTGAGCTCCCTG
ACTGAGTTCATTTGAGCTCTCAAGGGATGCCCTGGAGCTAGACTCGATCTGAGTGGTTGG
ACTAACTCCTCTTTGTTTTGTATTGAAGAGCCAGCTTACCCCGCCATTTNTAAACCTCA
GGCCAGGAAAACCAAAAAACAAAAAACCCAAACAAAAAACAAACCCACCTTCT

TABLE 1
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TNAGAANTNAGTAANCTTAAGGCTTNAAGAATCAACAGNGCCCCCTTTGGGNATTAAGGGC
CATT

Sequence 683

CCGCGGTGGCGGCCCGAGGTACTATAAAATACTATCCTAACTTTTTATGTGTTTTTTAA
CTTGTTTTTTAGAAGTTTTGTAGCGGTTTTTAAAAATGATGTATTTATAACTGGTTAGGA
TGCTAATATCTGTATCTTTTACTCTATAACCTAATTTTTACATTTTCAGAAAAAATTTT
TACAACAATGTAAAAAATACATGGCCCCGGGTGCGGTGGCTCACGCCTGTAATCCCAGCAC
TTTGGGAGGCCGAGGCGGGTGGATCACCTGAGGTAAGGAGTTAGAGACCAGCCTGGCCAA
CATGGTGAAACCCCGTCTCTACTAAAAGTATAAAAAATTAGCTGGGCATGGTGGCAGGCGC
CTGTAATCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAGGCAAA
GGTTGCAGTGAGCCCAAGATCCGCGCCATTGCACTTCTAGCCAGGGAGAGAAGAGCCGAG
ACTTCATCTTAAAAAAAAAAAAAAAAAAAAAGGTC

Sequence 684

CGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACACTCTGGCCCTGGCTTTATTT
TTAGATTTTCTTTCCCGGTTGATATCGGAAGGCACAGAGGCAGGAGGTGGGGTGGATAG
TAATGTGTGCCCCCTTGGGGGTNANAGTGAGGTGGAGGGGGATGTTAATNACCATGAGAG
GCAGAGGGTCAGNCNANTTTCCANNGCTTCNNGCTTCTTTAAATGANGGAAAACACGTG
CANGTNTTAGGAGACAAAGGAAGGGAANTGACTGTTTCTTGGCCTGGTNTGTGGGCCCAG
TNGNCTGNTNCNTTCAGTGNTNCGTGCANTTNGACTNTACACNTANGNNGGCAGGCATA
GGTGTNCGGTTNTGAAAGACNGNNNTCTTNCACATTCTCTNCTGCTCTAGGGACTGAC

Sequence 685

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTAGTAGAACTCTA
GGAAGTGAACCAACCCTTTTAAACAACCAGGGGAGTGCTTGATGAAGGAAGAGGCTACCGA
TCTTTCATAAGTATGAATAAGCAGCATGCATAAACCAATTACCTTCCCCTATTCTCACA
ACCACCACCACACCCACCACCTCTTGTTGGCAGTGGGGATAGCAGCCCATGTTCTCTGG
AGTTGCTAACCGGTGCCAGGAGGGACAGTAGGGATCATGTCTTCAAAATTTAGGGTTGT
ACCT

Sequence 686

CCGCGGTGGCATGCATCAAGGTGACAGGTGACGGCATGGTTATGGATTAACCTACCAAGG
AAATGAGTGTGGAAGAAGAATGCANAAATCTGAGGACTAGAGCCTGGAGATGGGGAGCT
TCGAGCTCAGAGGAAGAAGAGGATCTTCATCACGGGGAGACATCAGCCTTCTGAGTATCT
GGGACTGCAGGTTATGTGCCACCACACTCGGCTAATTAAAAAAATTTTCTTAGAGACAG
GGTCTCTCTACGTTGCCCAGGCTGGTCTCAAATCCTGGGCTCAAGTGATCCTCCTGCCT
CAGCCTTCCAATGCCTTGGGCTT

Sequence 687

ATGCATCAAGGTGACAGGTGACGGCATGGTTATGGATTAACCTACCAAGGAAATGAGTGT
GGAAAGAAGAATGCAAAANTCTGAGGACTAGAGCCTGGAGATGGGGAGCTTCGAGCTCAG
AGGAAGAAGAGGATCTTCATCACGGGGAGACATCAGCCCTTCTGAGTATCTGGGACTGCA
GGTTATGTGCCACCACACTCGGCTAATNAAAAAATTTTCTTAGAGACCAGGGTCTCTC
TACCGTTGCCCAGGCTGGTCTCAAATCCCTGGGGCTTCAAAGTGAATCCCTCCCTNGCC
CTCAGCCCTTCCAAATGCCCTTGGGGGCTTACAGGCCATTGGAGCCCCACCATGTGCAAA
NGAAAAGAAANAGCAATTTTTGGACATCCTGCCCAAAACAAACAAAGTTTGGGCAATGGG
TCCTGGTCAAGCAAAACAAGTGGGGTTTGGNGGAATAAACCAACCCTTGGGTTAAAAAT
AA

Sequence 688

NGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGGGCCATTGAGACTGCCATGGAAGACT
TGAAAGGTCACGTAGCTGANACTTCTGGAGAGACCATTCAAGGCTTCTGGCTCTTGACAA
AGATAGACCACTGGAACAATGAGAAGGAGAGAATTCTACTGGTCACAGACAAGACTCTCT
TGATCTGCAAATACGACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGATTCTCTGA
GCGCTGTCTATCGCATCTGCCTGGGCAAGTTCACCTTCCCTGG

Sequence 689

TABLE 1
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CCGCGGTGGCGGCCCGCCCGGGCAGGTACGCGGGGGGATACTCATTAGAGTTGCTCGGTGG
AGATGGAATGATGGTGGGGTGCAGTTAAACATGGCTGAGTGCTTTCTGCTTAAGGACCTG
ATGTATTAATGCTCTCCAGGTCATTCATATTTGGGGGAAGGAACAAAGAGGGTACCT

Sequence 690

CCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGCTATGAATCTCACA
GATGTAATAATGAGTTAAAGAAGCTAGGCACAAAAGAATATTACTGTATGATTCCAATCA
TATAAGTTCAAACCAGATCAAATAATCAATGAACGAGGAGTCAGGATTCTGGTTATAT
TCAGGGATAGTGATGGAAGAGGGCTATAAGGAGGGTGTCTGGGTGCAGGTCATGTTCTAG
ATCTTGATCTGAGTGGGGGTACATAGGTGTATTCACCTCATGAGAATTGAGAGGGCTGC
ACACTAATGATCTGTATAATGCTCCTCTATAGTATGTCACACTTCAAAAAAGTTTACAGA
AACAGTTCCTTCCTAATTTTACAGGGCCCTAAGAGCTAAAAACGCAGCCCCAG

Sequence 691

NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGGCCATTGAGACTGCCATGG
AAGACTTGAAAGGTGCGTAGCTGAGACTTCAGGAGAGACCATTCAAGGCTTCTGGCTCT
TGACAAAGATAGACCACTGGAACAATGAGAAGGAGAGAATTCTACTGGTCACAGACAAGA
CTCTCTTGATCTGCAAATACGACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGATTC
CTCTGAGCGCTGTCTATCGCATCTGCCTGGGCAAGTTCACCTCCCTGGGATGTCCCTGG
ACAAGAGACAAGGAGAAGGCCTTAGGATCTACTGGGGGAGTCCGAGGAGCAGTCTCTTC
TGTCCCGCTGGAACCCATGGTCCACTGAAAGTTCCTTATGCTACTTTCACTGAGCATCCT
ATGAAATACACCAAGTGAGAAATTCCTTGAATTTGCAAGGT

Sequence 692

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGCACTTTTTTTTTTTTTTTTTT
TTTTTTNCCATANAGATGGGGCTTGGCATGTTGCCAGGCTGGTCTCAAACCTNTGAG
CTCGAGCAATCTGCCACCTCGGCCTCCCAAGNGCTGGGATTACAAGCATGACCTGCCG
NGCTGGCTAAAGTTTCTTATTTATACTTACTCATTCTCTAATATCTGGATTTCCTTAGT
CATCTGTCACTTCTCCCTGCATATTTCTGTGATGTCTTTAGGTCCCTCCCACTNTTGT
GTAGCACTCCCTGGGGACCAATTTCAAGGATGCTGAGTCATATGGTTTTGGTTTTGAG
AGGGTTGAAAATGGAGACTCAACTCAATTTAGGAGCTATCCCATCATAACTAGTAGCAAA
ACACGTCACTTGTAGTCTCAACAAAAGACAAAAAGGTTTNAAGTTGGGGAAACAAAT
AGCTGCCAAGGGTTNTNTNTNTGACAAAAACATTGNGTTGGGGATTTAAATCNATGT
GAATCCTTAATCCCTAACTCATCCATGTTGGGGTTTTTT

Sequence 693

CCNCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCANGGTACCTGCTTNCCAGAAGTGT
TATCATGATTAATGACAGACCAGTGGCAGTAGCATCTCCTGAGGGAGGGTTAGAAATGC
ATATTCTCAGGCACCACTGCAGTCTTGCTGAATCTGAAGCTTTGGGGATGGGACCCGGTA
GTCTTTTGGATAACTCTGCCAAGNGGTTCCAATGTGCTCAAGTTTGAGAGTTGCTGAAT
TAAAGCGCTGGGTCTTGCCAGGCATACCTGTAATTCAGCTCTTTGGGAGGCTGAGGTGG
AAGGATTGCTTGAGCCCAGGAGTTCGAGACCAGCCTGGGTAACATAGCAAGATCCTATCT
CTACCAAAAAAAAAAAAAAAAAAGTACCT

Sequence 694

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCGGGCAGGTACTGGTCTCTGTCTTTAC
AGCTGAAGCATCAGAGGATGGAGTGACCAGGCTGGTTCCAATGACAGTTATACGGCCATG
GGGAGTANACATGGAGTCTAATTCAGTGCTTGAGGCTAAGAATGAAGTTGTATGCATTGT
GGAAATTGTTCCAGGAGATCTTGCAACTTTCAAGTTTGAAGTCATGTCTGTGACAGTCCA
GGAATNTGATGCAGCTGTGGAAGACCAGGTGGAAGGGTGTCTGTAGAAGTTGTGCGCCT
CTCTGTGGCCGGGGTGTCTCATGGTACCT

Sequence 695

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCGGGCAGGTACACATGTATCANG
GAAAAGAAAACGTTATTTGTCCACAGATGCTGCTAGGAGCAGCTACCCAAGACAGGCC
TTGCACCTTGGGTCATGACAATGCGTGGCTACTGAGAGCTGTTGACAGAGTGGACAGGGC
CCAGACCAGGACAGTCTCTTAGAGGTCTTCACCTCCTCAACCGTAACTTAATCAGCCCC

TABLE 1
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ATGCCGGGCTAGCCCCATGCCACAAAGGCTCAGAAATGCCCTGCAACATGTGGGACACCT
GGTAGTATCTACATAGGGGCCAGCATCCATCCCAGCTGCTGGGGGTGGCTCAAGAGCTGT
GAGGGACACCCTTCTCCTGCCTGATACCGTGGACCAGTTTGCAAAGAGCTGACTGTCCTGC
TAGGCCCA

Sequence 696

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGCGGCAGGTACTTTTTTTTTTTTTT
TTTTGTATATTTAGTAGAGATGGGGTTTTACCATGTTGGTCAGTCTGGTCTCGAACGGN
TGACCTCAAGTGATCCGCCCACCTTGCCCTCCCAAAGNGCTAGGATTACAGGCATCAGCC
ACTGTGCCCAGCCAGCCCTATGCTTTTAAGAGTTCGATGGTTGAAAGAGACTGAGCGGGG
AAGGTAGAGCGGGGAGGGGAGGGACTACTTGGAGTCAAGTCAAAGTTTTAGGGAAAGAC
CTGAATCTGAAAAAGATTATTTAACCTTTATGTGTCTGAAATACTATATTGTGCGAATTG
TACCT

Sequence 697

CCGCGGTGGCGGCCGCCGCGGCAGGTACACAAACACGACAGAAGCCACGGAGCAAGCCC
TGTGCTGGCCCCCTTACATGACTTTAGGCCCTCTAGCAAGGTGATGTTTATTACAGGGT
TGCATAAACAAGGCCTCACCATTCAAAAAACCTTGATTCTATTACATGTTTCACATTAA
CAAAGACTGGAAATCTNTAGGAAAGGGATCTTTTTATCTACATGAAAAGCACAGGCTA
GTAAAGACTTGTGAAAAAGTTGAAAGAACATAAATGTATATGGTATATGCCACATAGCA
TAATGGAGGAAGATAGCAAATAGGAAACATATTGGTGAGGAAGACTGGAGTTTGATGATC
TAGTCAGGAAAACATCAAGTTAAATCCTTTACTTTACACCTAAACCATAAACTGGTGAAT
AAAACAAGTATGTGAAAGCACANANGAGAGAGGACAGGCCGGGCGCAGTGGCTCACGCC
TGTAATCCTACACTTTGGGAG

Sequence 698

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATCCTATGCAGNCATNC
TGTNAGNACCCATTCCATTNTNCTATCCCTGGNTNGCTGGTGTCAATACTNTNAAGCGAN
TACTGCNGNGCTCTNNTTTTTCCCTCANAGATACCNGTTGATTTCTTTGATTCTCTC
CATCTCTACAGGCATAATAACTCCTAATATTTAAAAACNCTGTAGAGGGATGNANNGAAG
CTGNNGNGAGAGCCNTGGGCTTTTNCNNTGGGTNAAGATGCACATTCTGAAAATNTG
GGCCTTGGCTTAAGCTGNACTAGNGCCGGCCACTCAGCTGATCTCACTAGCGTCACCTGT
CGCAATGGTGCTGAAGCGCACTNCCNAGAGGCCATAAGGCAAAGCGAGAGTNCNTGGCTA
TNGACTGGANCCCATTTAAGCAAAAAAACATGCCTCNCGNANGACAAATTCNATCAACAA
AGGGNNGGCAATACAGGATCTGTACCTGCCCGGGCGGNNCGGGCANGAACCTTTTTTTTT
TTTT

Sequence 699

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCAGCCCCGCCACCCGGCTT
GTGTGTCATCCTGGGCCAGGCAGGTGATGATGCCAAACACAAGGCCAGCTATGTAACC
AAGTAAAAACTTTCATCAGAATGCCATCTTTGTGACCCACAGCCCATTGTCAAGAGCCT
TCCCTGTGCCAGGAGTTCAGCAGGTTACCTCCGCCTCCACTAGTCACTAAGACACGGAT
ATTTTAAGAATTTAAAGCCTCCACAAGCCAGGCACAATGGCTTACACCTATAATCCACA
ACTTTGGGAGGCCAAGGTGGGAGGATCACTTGAGCCAACGAGTTCGAGACCAGCCTGGGC
AACATAGCGAGACCTTGTCTCTACAAAAAATTTAAAAGTTAGCCAAGCATGGTGGGGCA
TGTCTATAGTCCTAACTACTTGGG

Sequence 700

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTCACTAGAGGCCAGGTTTCACC
ACGCTGGCCAGGCTGGTCTGATCCCCCGGCCCCAGGTGATCCGTCCACCTCAGCCTCCC
AAAGTGCTGGGATTACAGGCGTGAGCCACCGCACCCGGCTCTTTTTTTTTTTTTTAAAA
TCATGATTTTAACAGAAGCCTCCATTCAAGGCGAGACATGCCTTTTATTTCTTAATTGC
GAGACACTTTTCTGAATCCTCTTGTGAGTTGCACCTTTTAAACAATTGAGGTGACACTG
TTCTTCATGGTGACACTGGTCTTTCCCAAGAGGTTTCAGCTAATTCAGTCTATCAGATTT
TACATCAGATTTTAAATTTGCTTCAAACCTTGGGTGCTTGATTCAAATTCATGCTTCAT
AGAAAAATGCATATCAAGTTCAACAGTTGACTAACTGCAGCCACGTTACAGTACCTGCC

TABLE 1
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CGGCGGCCGCTCTAGAACTA

Sequence 701

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAAAAGGCTGATACACAC
TGACAGATTTTGTAAACAAGGGACATTTAAACTGAGCTGGTAATAGACTTGATTTCTGGT
GTTGCCACTCAATAGGCATGACTAAATAGTGACCTCACTGTTCTACTTTTTATAATTAA
AATTTTAGAGGAAGCTGAGTTCCTGTATTTAACTACAAGTTAGAGACTCAGCCCACAAGC
TTTTTTTTTTTTTTTAAATATGGTTTCTTTTTTTTTTTTGGAGACGGAGCCTTGCTNTG
TCACCCAGGCTGGAGTGTAGTGGCGCGTCTNTGCTCACTGCAATCTCTGCCTTCCCGGTC
CAAGTGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTACCGGCGTGCACCACCACG
CCCAACTAATTTTAGTATTTTAGTAGAGACGGGGTTTCCCATGTTGGTCAGGCTGGTC
TTGAACCTCTGACCTTGTAAGTGGCCACCTTGGCCTCCCAAAAACGCTGGGGTTACAGG
CGTGAGCAACCATGCCAGCCTTTTTTTTTTTTTTTTATTT

Sequence 702

AGGTACGCGGGATATATNTAAATTTAAGAAANCATCCCCGGTAATATGGCTCTTCATAAT
TCTAAGACTAAGGCTGGNGTAGAAACCTAACCACTACCTTACAAGNGAAGGGGGCTATA
CCATGGGGTAAGCCAAGTTTGAAATTTATGGGGAATCNTACCAACTTGGNTTAAGGGGG
CCCTNGGATTTGGCCTNNGGGGGCCAAGNNTTTCTGTATTTTTATAAAAGGTGATCTTN
CATNGGTATTCCCTTGGTTTACCTTGGATAAGGGGGGATTACCAATGCCTTCTTAAGGAA
AAAAATTCACCTTATTTGGGCCTTGGGGGGGAAGGTAGGGTNGGGCTTCAATAGCCCTTGG
TAAATTCCTCCAAGCCACTTTNNGGGGAAGGAAGGGCCTGGANNGTTTTGCCGCCCACTT
ACCACTTCCCAAGCCCTTGGGGGGTGGAAACCAAGAAGTGGGAAGGAACCTCTTGGCCCT
CAATATNNAAAAAAAAAATNAGAAAGGNAANATTNCACCTATTCTTACCANAACCCCTAAG
NACCTAATTTTTAAAAAATACCAAAAAGAATTGGCCCTNGTTTNTCAAAAACCACTAA
TTTGGGAAATAAANAANGGGGTGGAAGAATTATTTCTTTAACCCNNATNGGAATAAAA
ATNNATNNNATTNNGGGGNTCCCTTGGCCCNNGGGCCGGGCCGCTTCTAAAAACNTAAGN
GGGGATCC

Sequence 703

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGNCGGGGGCAGGTACTACTGACTTACCTGCC
ATGGGCTTTCTCAAGACAAGTCCTGCAGGAGAGGCACACTCACTTCTAGCGTCACTATT
GAACCAGCCACTGCCTTCACTCCTCATCTCTCAGCAGCAGTGGTCACTGGATCCAGTGCT
ACATCAGAAGCCAGTCTTCTCACTACGAGTGAAAGCAAAGCCATTATTCTTNACCACAG
ACCCCAACTACACCCACCTCTGGAGCAAAGTGGGAACTTCAGCTACTCCTGAGAGCCTT
TTGGTAGTCACTGAGACTTCAGACACAACACTTACCTNAAAGATTTTGGTCACAGATACC
ATCTTGTTTTCACTGTGTCCACNCCACCTTCTAAATTTCCAAGTACCT

Sequence 704

CCGCGGTGGCGGCCGAGGTACTGTGAAAGAACTAGCACTTTGAGCAGAGAACAATGCCT
TACTTGAGTTTCCCCTGGACTCTATCCCTATTCAAAGATGCTTGGTTATACCTCAAGAGG
GAAGCAATCCAGACCAACTCCTATGACATGACAGGCACTCAAGCCTGATGAGGCAGAAAC
CTGGCAGCTGTAGATGTTGGAAAGGATAATTTATGTGTTCAAGTGAAGTACTAGGATTCTAAGG
GCTAGATGCTAGCTTCAAGCACGGCTGGATCTAGGAAGCCCTTTGCTCTCCCTTTTCTT
TGGTCTACTTTTCTCTGTAGGCAAGTTCATTCTTCTAGGCAAGTCTCTGCATGTGGC
AGCAATGATGGCACTGGAATCTCTGGGTATTCTAGAGTTCTTTCAGTAGCAG

Sequence 705

CGGGCGGGTACCTTACCACCCCATCCCCAGAGCATTGCATGGGGTGTTTGGCACACAGTA
GGTGCTCAATGTAAACGTGTGCACTGTGGCATGTTAGAGCCAGACAGGATCTCATCCAGC
CCGTTCTCTGCACCCCTCCCTCCCTCTCCAAGTAGCCCTGCTGTGGGTTCAAGTAAAGA
GGGGCTGGGGCGCTGGTCTGATTGTGTGGGTGATTTGGGGAGATCTTCTCTTCCGGA
ACCCCAAANGGTTGGGACAAACACAGCAACAAGCCCAGCTCCCTGAATTTCAAGTGATTCA
TTTGTGGGATAAAGGAGTGAATGATAAAGTGAAGGACGACTGTCCCCGCGTACCT

Sequence 706

NGGTTAANTGCCGCCNCTTGGCCGTAATCATTGGGNCATTAAGCCTGGTTTTCCCTNGTG

TABLE 1
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TGAAAAAATTTGTTATCCCGCTCCACAATTCNCACACCAAACATTACCGAAACCCGGGA
AGNCAATAAAAAANTGGTAAAAAGCCCTTGGGGGGGTGGCCCTTAAATGAAGGTGGAAGC
CTAAACCTCAACAATTTAAATNTTGGCGGTTGCGGCTCAACTTGGCCCCCGCCTTTTTNC
CAAGANGCGGGGAAAAA

Sequence 707

GGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGAACATCCATGGCAGACGCTATT
CTTTCCCTCTTAGAGATGCAGACACTGAGGCTCAGAGAAGTTGTCCCGCACCCAGTATGT
GATGGAGAGGTAGAGGGTAAAAACATCAACTGAAGGATTTAGCATTGGGGAAGAAGGAA
GAAGCCCCAAATGGAGTAGATCAAAGGCTCCCCCGTGAACAAATTTAAATTAAGGAGAA
AGAAGCAGAATTCAGTCTTCTCCACACCCATAACCAAACAGCTCCTATGAAGGCACCAAG
CCTGACGCTCATCCCAATAAAAAGGAACGATCTGGAGAGAGGGGCAGCCGCTGGTGACAA
GAGAACCCCCCAGGCAGCCTCGTCATCTGGCCAG

Sequence 708

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTGGGGGACAGATATCATAT
AGGGGATTTCATGTCAGTGACCAAACGAAGTGACCATTACAGCCCTTTNGAAACCTGAGGT
GTAATTTTTAAAAATGAACATCATGACTTTAATAGTCATAGACTCAAACCTGAGTTGATTA
TTATGAATTAGTTTATGGGAGTCTCAATATGTGAATATGATGGAGACAAGTTTTGGAATA
CAGATAAATCAAGTCACTGTATTCACCTCTCTCTCTCTCTTTGAATAGCCTTATCTTTG
CCTATACACACAAACAGTGCAGCCATCAAAATTTTCAATTTACAAAATGTTACAGTCAT
GCTTCTTCTTGACTAAACACTGGGGTTGCTGCCAGTGGTAATTGGCTTGAACACAGCTA
ATTTTTATATATCTATTTAGTCTGGATATTCTAGATGAGTGGGCACTATAGT

Sequence 709

ATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACCCACGTTTTGCTCCCACTCCTT
GACCGCAGGGGCTCGGACACAAACCCCTGTCAACAGGAGAGTCAGTCAGCACTACTTGGG
AGGGCTAAAGGGAAATTTGGAAATAAAATTCCAAAGTTTGGAGTAAAAAAATTCAAGTGT
TGATTTTATATTCTTTCCCTTTCTGACACAGCCTAAAGCGTAGGGGGAACATGTGTTTAT
CTGTGGGAGATAAACAAGATGGAGTCCCAAAGACTTTAACAAAATATTTTTTTAAAAATC
CACTAGAATAGAAAATACATTATTTAGATATACTTTATGCTGAGAGTGAGTATATATGCT
TGTCCTATTTAACTTGTGAGAAAAAGTGGTATCCCTTGATACATTTAGAAATATGGGGG
CTATCTTGTTTCATTGNGGGGGGTGGGGGCAGAAGGAGAATAAATGCAGGATGCCCTTGT
TGAAAGGAATCTTAGCATGGCCACAGGGGACGTTTCCAGTCGATTACCAAGGAATGCCA
GCCT

Sequence 710

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACCCACGTTTTGCTCC
ACACTCCTTGACCGCAGGGGCTCGGACACAAACCCCTGTCAACAGGAGAGTCAGTCAGCA
CTACTTGGGAGGGCTAAAGGGAAATTTGGAAATAAAATTCCAAAGTTTGGAGTAAAAAAA
TTCAAGTGTTGATTTTATATTCTTTCCCTTTCTGACACAGCCTAAAGCGTAGGGGGAACA
TGTGTTTATCTGTGGGAGATAAACAAGATGGAGTCCCAAAGACTTTAACAAAATATTTTT
TTAAAAATCCACTAGAATAGAAAATACATTATTTAGATATACTTTATGCTGAGAGTGAGT
ATATATGCTTGTCTATTTAACTTGTGAGAAAAAGTGGTATCCCTTGATACATTTAGAA
ATATGGGGGCTATCTTGTTCATTGTGGGGGTGGGGCAGAAGG

Sequence 711

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGACGGTGAGCCGGAG
GAGTCATGTCAGAGGGGCGAGCAGGAGCGATTCCGTCGCCAAACAGGTTATGAGTGCCAG
TGAGCCGCCTTAGATAGAAGCATCGTCAGCACTTTATTAATGATGGATAGNGAGAATAAA
CCCGAAAATGACGAGGATGAAAAGATAAACAAGAAGCACAAAGACTTGACAAAGCTTTCA
TCCCATAATGAAGACGGTGGGCCTGTATCTGATGTGATAGCAAGTTTCCCTGAGAATTCT
ATGGGCAAAAGAGGTTTTTCAGAAATCATCGAACTCTGATAGTGTGTTATAGGAGAAGA

Sequence 712

NCCCCGNGTGGCGGCCGAGGTACTCTTATGAGAGGAACATTAAATTTGCAATTATAATG
CAAAGAAACAGGAGACGATCGTGAGAATAAGCAATGTCACACACATTTCTCTCCAAACTA

TABLE 1

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TATGTATCTTGTCTTTAAATTCTTTGACGTGTGTGTGGGGCCTGGGTGGGGGGTGTGGG
TGTGTGGTGTCTAAGGGCCTTTCTACTAATTCCAATAACTGGGTATCTGTGAGGCTG
CTTATTCTCACTGTATTTTACTGCTTCTTTGCCTTTCTTGTTTTTTTTTAACCATACT
CAGGTATGGTTAAAATGTAAATGAAAGAA

Sequence 713

CCGCGGTGGCGCCGCGCCGAGCAGGTACTGGGGCTGCACAGGCTGTGGCAACACTGGCTA
GTCAAAGCCTGGAAAGACCTGTGAGCTTGAACCTCTCTGGGTGCCATTGTTCTGTTGGT
TTCAGCAGTGAGACTGAGAGAGCCTGTTCTGTTTAGAAAAGCCACAGTGGTTTTCTAGGT
AAAGTCTGCAGGAGATGTCACTTGGTGCCTTTTCAATACGAGTTTTCCACCTGCATTTTT
GGAACCATTATGGGCCTTTTAAAAATTTATTAATAAGTCTCTTAAATATTTTATAATCTA
GCTTCTGAGACAAGATGATTTTAAACAGTTATATGCTCTAAATTAATAATTTA

Sequence 714

AGGTACCGTGTGAGCAGGTGGCGTTCACCAGGGGTGAGACTTTATTGACAGTAAGTTGCC
TCTGCCAAAAAACGCCCTCATATGTCTGCTGATGTTTGAATTNCNNCCNNATGGCAGGAG
GTTTTTTGGTCTCCCGAGNTTTAAAAAAAATTGGTTAAAAATAACCTGGGTTTGGTTN
TTTCTTTGNTATGGGGAAGGCCCTTCCAAGNAAGNGGAAAATAAANAAAAAAGTAATTA
NANCCTAACCTTCCTTAAGGGGAATTAATTGGTAATTTCAAAATTTTTTGAATGGCC
TTANCTTTNTTAATTTTTTTAAATTTTTTAAATTTTGGGANGGAAACCAAGGGGGGGG
TTTCTTNTGGGCCTTTCTTGGTTTGGCCCCCAGGGGGCNGTGGGGNANGGTTGGCCAAGG
NCCAATNTTTNNGCCAAAATTTCCAAACCAAGGGCCCTTTCAACCTTTGGGCCAAGNTC
CCCCTTTCAAAAACCCCTTTTCNNCCTTGNITTTGGGCCCCCCAAAA

Sequence 715

CCGCGGTGGCGCCGAGGTACCGTTTTATGATGATAACATAACTTTAATGCTCCAACCTG
AGAAAGATAAAATAGACTAAGATGACCATTGAATGCAAACAGAAAGTTCTAAATGAACAA
TCAAGNCAGGACCTGGAAATTTCAAGTCCCTGGTGGTTGGAAAANTAAATTAATTAATA
ACCAANTTTCTTGGTTTTTCCAAGGAAAAANTGGNTAAAAAAAATTAAGGTNTTTAAAT
AANCCCCAGGGAAAAATTTCCAAATTCAAAATTTAAAAAGGCCTTAAATTAATTAAT
ATTTTTTGGCATTTTCAAGGCCCAACCTTAAATTTGGCCTTANCCAAAATNGGTTTTT
GGGTAATTAACCAAGGGCCAAATTTNATTAATAAAATTC

Sequence 716

AGGTACACGATTATTTACCATCCAGGTATTAAGCCTAGCACCCAAGAGTTTTTTTTTG
CTTCTCTCCTTCCCTCCCTCAAGTAAATCCAGTGTCTGTTGCCNCCNTNCTT
CGGTANNAACCAAGGTGGTTTTTTTTTAAATTTTTCCACCAAAAAAATCTTCNCATNC
AACCTTCCTTCTTTTCAATTTTTTGGCCTTNNCCTTAAAACCGNAACCTGGAAAAACCT
TNCTGGGTTNTGGCTTCCCCAGTAAAGNACCAGGAAANTTTTAAANTTTCAATTTT
TTTAATTCCCCGGGTTTTTTAAAAAAGGGTTNAAAAGGGGAAAGGNTTTCCTTAACCCCCA
AGTGCCCAAGGGGAAAGNTTGGGGTTGGGGGGCCTTCCAACCNAATTNCCCTAANTTAAA
AATTTTTGCCCNAAAGGGCCAAACCTTTNNTTTGGGAAGNGAAAGGGGGGGCCCCCGGA
AAGGGGGCCCCGNAAGGGTTTGGGGGAAANTTCCAACCNAATTTGNTAAAGGGGGTTTT
TGGGGGGAAAAAG

Sequence 717

CCGCGGTGGCGCCGAGGTACTACAATAAGGACAAATATTCAAACATTCTGTAAAGTAA
AATAAGACAGTCAAAAAGGAAAGCTGTATAATTACACTCATGTAAAAATATTTAGTCCAA
CNCTCACAGGANAACCAAGGTGGTCAATAGGTTCTCAAGCCAGGTGGCCACCCCAAG
GAATGGTTAAACCAAGGTTCTTCTTCNGTTAAGGTTCTGGAAGGAATTAACCAATT
CCCCAAGGAGGTTTNTTTTTGGTTTTCTTAACCTTCTTAAAGGGGAGGAATTTTAAAG
GGGAGGTGGTTAAAAANCAACCAAAAAGGGTTTGNAAAGGGNTTTTGGGGGAAGGNTTT
GGGAAAAAANGNTTTTTAAAGGNA

Sequence 718

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGACTGTCTCAAATTCCT
GGATAGCTGTCCCTCATGTACCTAGCTGCTGAGAGCTTTGTGATCCTAACAGGTGATGA

TABLE 1
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CTCAGACCGACACTGCATTGGTAGGAATTCCACAAATAGGTGCCTCAATGTGCCTAGATT
GAAATATCAGCCTTTCCCAGACTGACCTGATGGGTTGACTTCAGGTGTGGTGTAACACC
TACATTTTAATGTAAACATTTTCAGTGTAAATCAATGAGAACTATCATTCTGCTTTAATCAC
CATGAGTTCTGAAATAACAAAGGATTTGTCTGACATTCATTCTAAGAAATTCATTCTTAC
CTGACTAAGAAACTTTTTTAACCCGGCACAATAATAAAGAAATGACCTGTNAGTACCTGC
CCGGGCGGCCGCTCTAGAACTAG

Sequence 719

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGACTGTCTCAAATTCCTGG
ATAGCTGTCCCTCATGTACCTAGCTGCTGAGAGCTTTGTGATCCTAACAGGNGATGACT
CAGACCGACNCTGCATTGGTAGGAATTCCACAAATAGGTGCCTCAATGTGCCTAGATTGA
AATATCAGCCTTTCCCANACTGACCTGATGGGNTGACTTCAGGTGTGGNGTAAACACCTA
CATTTTAATGTAAACATTTTCAGNGNAATCAATGAGAACTATCATTCTGCTTTAATCACCA
TGAGTTCTGAAATAACAAANGATTTGTCTGACATTCATTCTAAGAAATTCATTCTTACCT
GACTAAGAACTTTTTTAACCCGGNACAATAAANAATGACCTGTAAGTACCTGCCCCG

Sequence 720

CCGGGCAGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCTGTGCTCCAGGTGTTTACA
GCTGCTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTGCGCAAATGTTGCC
TGTGCCCAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTG
GAGGGGCAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTG
ACTGCATTACACCACTCAGTATATGTGAGGGAGGGGATGTGCCTCTGGCCACGTGGTTAC
CTTGCACTGCACAGCCTGTGGTCATAGA

Sequence 721

CCGGGCAGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCTGTGCTCCAGGTGTTTACA
GNTGCTTNGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTGCGCAAATGTTGCC
TGTGCCCAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAAAGTGAGCTCGCTG
GAGGGGCAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTG
ACTGCATTACACCACTCAGTATATGTGAGGGAGGGGATGTGCCTCTGGCCACGTGGTTAC
CTTGCACTGCACAGCCTGTGGTCATAGAAGGGGGCTACAGCTCACGCATCGTGGGTGGAAA
CATGTCTTGTCTCTCAATGGCCCTGGCAGGCCAACCTTTAGTTTCAGGGCTACCACCTG
TGCGGGGGCTTNTGTCTTACCCCTGTGGATATTAATGCTGCACACTGNGGTTATGACT
TGTACCTTCGGCCGTT

Sequence 722

GGAGAGGAAATGTGTAGGGGTGAGGGATGATACAAGAAAGCCAAATCCTCATCTTCTATA
GTAGAGAGTCAGCGGATAAAACCTAAAAACAATACATCAAGAAATACTTACACTTATGGA
AGGAAATACCAGAAGTTAAAAGGGGTTACTTCTGGGACATCAGACACCAGACTGCAGGGA
AGGGCTGCCTCTTGATTAACAAGCTTCCAGTATAATTTGCTTTTTAAAAATAGGTCCAT
GCATTATTTTAATAAAAAATTANGCTGGGCGTGGTGGCTCAGGCCTGTAATCCCANCACTT
TGGGAG

Sequence 723

ATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACTTAAGCAAGCTGTGTGACCTA
GAGCACAGTGCTTTGAGTTTTTGTAGTCTTAGCTTCTGTGTCTATAAAATGGGGTTCACAC
AACTCACCTTACAGGGCTGTAAGATTAGATTACACAGAAAATATATTTTTTGGCTGTGGG
GGCTGGAAGTGTTGCTGATTAGCATTTGAAATCCCATCCTGTGGGTGAGAAAACCCACC
TTATGACTTGGTGGGAAACAAAGCCAACCTCCCACTGATGAAGCTGAAAGTAGCAGAACC
TTGCTTCTACTGCCTCCCTTGCAGCTAGAGGCAGGCACAGGACTAGCCTGTCAATTGGAT
GCAAATGCTCCAGGCCTGAATCACAACCTGGTGACTTGACCCCAAGTCTATTA

Sequence 724

GGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTCACGTAGCTGAGACTTCTGGAGAG
ACCATTCAAGGCTTCTGGCTCTTGACAAAGATAGACCACTGGAACAATGAGAAGGAGAGA
ATTCTACTGGTCACAGACAAGACTCTCTTGATCTGCAAATACCGACTTNATCATGCTGAG

TABLE 1

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TTGTGTGCAGCTGCAGCGGATTCTCTGAGACGCTTGTCTATCGCATCTGCCNNGGCAAG
TNTCACCTTCCCTGGGATGTNCCCTTGGACAAGANACAAGGGAGGAANGGCCCTTAANGAT
CCTANCTGGGGGGGA

Sequence 725

TAGGGNGAATTGGAGCTCCCCGCGGTGGCGGCGCCCGGGCCGGTACCCATAAAAAATTAAA
AACTATTTTAAAAATAAATTCCATTTGAGCCACTCCTTCAAACCACCCAGAGTGGGTAG
ACGTCTTTTCGTGCCTCTAAGAAGCCCCATCTCTATTCTGCGTCTCACCTTGCAGGGCTGC
TCATCTGAATCCTGAAGATGGTGGACACCCATCTGCTAGGACTGAAATGAATAGGACAGA
GGGAGGTGCAGAGTGAATGGACCATACTACCTGTCATCTTGGCAACGTGTGATTGAATAA
AACAACCTCTTTAGAAGTTTGATAGAGTGATTTGATAATGTAATTTACAAGTGATCATTT
CTTTTA

Sequence 726

GGAGCTCCCCGCGGTGGCTTTTTGAGTCTGGACAGGNCTCTGTTTTGCTTTAAAGTTAA
GAGAGCTAAATAAATGATGGTAAAAAGATAATAAAATAGAACATGAAGGGCTGTCAGTCA
GTGTAGGTATTTCCATCCCTCACTTTTCAAGTGAGGTCACGGAGGCTCAGAGCGATAAG
GAGACTTGTCCAAGGCCACACACCGGCTGGTGTCTCAAGCCGGGACTTGAACCCACGCAGT
CTGACTCTAGAGCCCAAGCTCCTAACTATGACATCCTATTTGATACACTGTTTTACTGGA
GAAACAGATCATTTGACAGACATTCTTTCTGTTAGCAATTTGACAACCTCTTCCCCAGTT
GTCTGTACCTGCCCC

Sequence 727

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCGCCCGGGCAGGTACGCGGGCTA
TTCTCTTACAGCTAGGACCCAGCGTTCTGGGCAGAATAGCAGGCAGCGCAGTAGCTACTG
AGATTATAAGTGGTAGGTTTATGGAGCTGTGACCACAACCTCTCCACAAGCCAGTGCTGTC
TCTGCAAGCACTCTCAGTGTCCAAGTGCTGAGTGTGTGAGTGGTCTGGGCTTTGCAGGG
TCGGCCAAGCTCTTGGAAGAGCAGGCTTTGTTAGCTGGGGAGTCATCGCTCCATGCAGGC
CCTGAGAATGGAGCATCCTGAGTGGACTGGTAGAGATGGGGCATGGGTCACTCTGAGGGT
TTGAGCTACTTCTGCTATTTTGAATTTCTGGTTTGAAGTGCAGGATCGTGCTGAGTTTG
GCACAGACTAATTTCTCTGTTGGCAGCACATGATGTATCAACTCATGTGTCAGTTGGTTT
G

Sequence 728

CCGGGCAGGTACTACCTTCTCTGCTACAAGTCGAGCGAGGAGCCCCGCATGAGCCCTGAC
ACCTGTGCCACCATTTTGGAAAAAGCTGGTCTCGATAACTGGGCTCTTGGAAAAACAAA
GTGTTCTTAAAGTATTATCACGTGGAGCAGTTAAATCTAATGCGAAAGGAAGCTATTGAC
AAGCTTATTTTGATTCAAGCTTGTGTCAANAGCATTCTTGTGTTCAAGGAAGGATACCAA
AAAATACAGGGAGGAAAAGGGAAGGAAAGCCGCTTATAATAATACCAGTCAGCTTGCAA
GGAGGGACCACCTTGTGAGGGAAAACAANAAGAAAAGGAAAATTTGGTTTGGACCATTG
AAAAACCCCAGCANTTAACCAACCCAATTTCAAAAACCTTTCTTGATTGAGGGAAATTTT
GACTTACCAAGAAAAAACCTTTGGNAAAAATACCCANGGGGGGNTCCTGGGNAAAGGGNA
GGANGGGAGCCCAAAAAANAATTTGGANAACCCCCCNANGACCGACCCCCCNGGAAACC
CCA

Sequence 729

CCGCCCGGGCAGGTACTTTCTTTTTTTTTTTTTTTTTTTTTTTTACGGAGTCTTGCTCTGTC
ACCCAGGCTGGAGTGGAATGGTGTGATCTCGGCTCACTGTAACTTCGCTCCAGGTTT
ACGTGATTCTCTGCCTCAGCCTCCGGAGTAGCTGGGATTACAGGTGCACACCACCATGC
CTGGCTAATTTTTTGTATTTTGTAGAGACGGGGTTTACCATGTTGGCCAGGCTGGTC
TTGAACTCCTGACCTCAAGTGATCTACCCACCTTGGCCTCCCAAAGTGCTGGGATTATAG
GCATGAGCCACCACGCCAGGCCCACTCTNTAAATTTGACCACCCTGCCTTGAGTGGTCT
TCTAGCACCTAACCTCTGTCTAACCTTCGAGAGCTTTGCACTAGCNATTCCTGGGGACC
AGCTATGGTTGGTATCTTCTCAACTTTCTAATTTTTTAAAAATATTATTATTATTATTA
TTATTTTAAAA

Sequence 730

TABLE 1

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TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTGTGTGGAA
AAGAATGCTTGCAAAGCTTGTCACCCTCACGAGAATTCCTCTGACAGACATTTGCCTTTG
ACAGTGAAAACAGATATTAAGTGAAAGGAGAAGAAACCGAAGAGCATCAGAGGGGACGA
CTGGGTACTTAAGTGTGGGGAGCAATCTGAGGAGTTGGTTACCAGAGAACTGGCGAT
GGCGATCCCGTGAGCAACATCTCTCAGACCCATTTAAATGCCGGGGGATACTTAATCAT
GCTGAAAAACAGCAGAGCCCTGAGGTTTTGGACTACATGTTGCAGAAAGAA

Sequence 731

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTACACCTGGGACAAA
TACTTTTTGTGAAGNCAGGTAAAGCCTTTGCGTGCAATATAGCATCTCTATGCAATGCA
NCAACTCCTCGTCTATCGCTACAGTAAGAAAACAGCCACGGGTGAGGTGTTGNGGCTCAC
ACCTGTAATCCCAGCACTTTGGGAGGTCNAGGTGGGTGGATCACTTGAGGCTAGGATTTT
GAGACCAGCCTGACCAACATGGAGAAACCCCATCTNTACTGAAAATACAAAATTCCCGGG
TGTGGTGGCNGCATGCCTGTAATCTCAGCTACTCGGGAGGCTGAGGCAAAAGAATTGCTT
GAATCTGGNAGGCGGNCGTTTGNNGGTGAGCCAAAATCGTGCCATTGCACTCCAGCCTG
GGCAACAAGAGCGAACTTTCGTTTCAAAAAA

Sequence 732

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTAGTTATTT
TAAATTCACCTCATAACTTATCGGCCAAAAGTAGTCACATGGCTCCACCTAATCACAAGT
GGAGCGGGAAAGTGCAATCCTACCTTGCTGGGGAAGGTATAGAGATAGACCAGCACTAAT
GACTACCACACTTCGCTAAGGTCACATAATAAATAAGCATCAGACATCAGGTGTGGTGGC
TCATGTCTATAATCCCAGCACTTTGGGAGGCTGAGGCGGGCAGATCACTTGACTACAGGA
GTTGGAGATCAGCCCGGACAACATAGTGAAACACGTCTCTACTAAAACACACGCAAAAA
AATACGAGGCATGGTGGTGCATGCCTGTAATCCCAGTTACCTGAGAGGCTGAGGCACGAG
AATCACCTTGAACCCAGGAGGCAGAGGTTTGCAGTGACCCGATATTATGTCAGTGCAAG
TNCAGCCTGGGTGACAGAGCGAGACCTTGTCTNAAAAAAAAAAAAAAAAAAGAAAA

Sequence 733

CGACCACTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTGC
TGGTTCAAGCCATTAAATTACATCACAAAGGTTTGGTTTCTCTGTATATATTTCTCTGGG
GCACTTTTGCTANGTTGGCTCTATCCTGAGGCAGNCTCTCTCCTCGTGGNAACCAGGTGG
CTCTAGCAGCCTCAGCTTTATATCTCTCAAGAGTAAGTCCACCGTCACAGAGC

Sequence 734

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACACACCACCACA
CCTGGCTAATTAATTTAAAAAAATTTTTTTAGAGATGGGATATCTNTATGTTGCCAG
ACTGGTCTCAAACCTCTGGCCTCCAGCAATCCTCCACCTCACCTCCCAAAGCCCTGGGA
CTGCAAGCATGAGCCACCATGCCAGCTATATTTTCTGTAAATTGCTAATGANAATGAAA
CATGTATGCTGTGGACAGAAGCCTTGTGGACCTAGAGCCCATGCTGGGTCTTTGCCTT
AATAAACATAACTCTGGCATTACATATATAATTAACAGCCTCAAAGANCATGTTTCTTT
ATTAAACTCTGACTGTTTCAGCATTATTTT

Sequence 735

GCGAATTGGAGCTCCCCGCGGGGGCGGCCGCCCGGGCAGGTACTACTGTGTCCTTTAGAT
CACTCTGCCTTGATCACTCTGTCCCGTCACTCTGCTATTTACCTGNCAGNGAAATACCT
GGTATCGTCCTGCCAACGTGAAGCATTGAATGCTTNATACGTCTCCATCCTGATTGTTA
GGCTTTGAATGCTGAGAAGTATCTGCACTTTGTTGGTCA

Sequence 736

CCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGAAGTACCCTTAAGCCCTGCTCCT
TTGTAAAGTCTTTTTGGATTGTCATCATCAAGAGTCAGTNGATCTCCANCTTCTCAGAAC
TCACAGGGCACTCTGTCTAGGCATTGCTGACCGTCTGCAGTGTGAGATGGTGACTTCTGT
ATGTGTTGTGTTTCCCGTTAGACTCTAAGGTTTTTAAAGGCGAGACTCACTCCTGCAGAA
GCACATAACACAATGCCAACTCTTATTTACGGAGGTCTGGCGCATTGTCAGCTTTTGG
TAAATGCTTTTCTTTGTTGAATACTTATCTTCTGTGTGCCAAGATTTGTGTTAAGTGCT
AGAAAAATGTGGGAGGTCACCGCAGACCCTGTTCTCATGGAAGTATGGTGTGTAGTGGG

TABLE 1
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Sequence 737

TNTAGGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CTTCCTGAGCAGT CGAAG
TGGATGCCCAGACCAATGGCCAGTGCTAATATCAATGCAANGATCCCAATGACGATGATT
GGAAAAAACTTCAATGGCAGCAGTGACAGGATCTGTGCAGCAACAGCATCTGCATCTGGT
GCAACAGGACTTATTTTCAAATCATCAAGGCCAAAAAGCGATCGGAATGAGAAGGGGGCT
TCAACAGCAGGCGGATCATTTTCCCCCATGGTGACTATTTTCAGGACCTCTGACATCCGGC
TCCGCCTCCACCTCTACCTCATAATTCCCGAGTCCCAAAAATGTAGATGGCACCACGGAA
GAGATAGTAGGCCACAGTGTTACTGGCTTCCCATAAACACAGCCCTTTCCTGGCTCACAC
GGGGCATGACCTCCCGCGTACCT

Sequence 738

AGCTCCCCGCGGTGGCGGCCGAGGTACATGTAGTTGGATGTCGAGGTTNGATTAGATTCT
GGGGTTGGTTTGCTTGTTTTGGTGGATNGTTTTNTGAGTCGACTTTACAGAGGGTTGTTTA
TCCACCAGAAGGCACATGTGCTTGCCTGTGTCTTTTTTGTTATTGTTTTGAGGCAGAGCC
TCNCTCTGTCTTCCAGGCTGGAATGTAGTGGCACAATCTTGGCTCACTGCAACCTCCACC
TCCCAGGTTCAAGTGATTCTCCTGCCTCAGCCTNCCAAGTAGCTGGGATTACAGGTGTGT
GCCACCATGCCAGCTAATTTTTGTATTTTCAGTANANATNGGGTTTTTTGCC

Sequence 739

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACACTTCCACGA
GAAGAATTAATATTGTAGTGTTAGGAAAAC TAGCAATTTAACTAAACAGCATCAAGTTAC
AAACCAGGAAAGTGATTTAAAACTAAATGCTGGCTTATCTTTCTGAAACAAAGCATCTAA
ATTTGACAGTCCAAATGGCACTTATTGAGTGCTCGTGACAATACATGCTGACAAGCAGC
ACACCTCTTTTTTGTTTTTTAAAGACGGCATCTTGTGCTGTACCCCAAGCTG

Sequence 740

CCGCGGTGGCGGCCGCCGCGGCAGGTACCTATATAAAATTGATTTAGCTTCTACACTCA
AGTAATTATAAACAGGTTTNTCTTTTGGGACATTTGACAGTTATGTGAAAGGTGAGTCTT
CGTTGTGTAGTATTGTCTGTTACACTGCAGGTGTCTAGAATTGCTGATAGTGTTCTCCCT
CTAAAGTAATGTCACCCAACCACTTGTAATTGACGATAATAAGACAGGAAATCAAGAAC
CAATATAAATAAGCAAACATTTGAAAATAAGAGCTAAAAATCAAAAATAATCTCTCTTTT
TGCTGATAATACTTTATACCTAAATAACCTAAGATTTTTTTTTTTTTTTTGGACACAG
TCTTGGCTCTGTCACCCAGGCTGGAGTGCAGTGGTGCAATCCCGGCTCACTGGAACCTCC
GCCTCCTGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCTGAGAAGCTGGGATTACAGGCA
TGCCCACCGTGCCTGGCTATT

Sequence 741

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA
CTACAGTATAAATCATGCTCCTGCTGTCTAGAGCTTACCAC
CCAACGAGGGCTTCAGATAAGATCAGCAACTGCCCTAGAGT
GTGGAACCTCTATGACAAGGTGAGCCTGGGGTGTGATGGA
AACACGGCGTGCATGGTTACCAAGCCACGCTTCCAGGGAA
AGGGGTCCGTGCGGGGAAAACTTCAGAGAGGAAATGACAT
GTCAGTCAATAACCTGAAAGAACTGGNTGAGAGTTAAGCA
NCAGGGAACAAGGGCACAGTNNNTCCACACAGCTTTTTGG
AAAGATCATGTTGNTTATAGTGCAAAAAAATACTGAATAT
GGGAAACAATTTGTTATTATTTTTAGGAGTNTTGCTTTG
TCCCCCAGGCTGGAGTGC

Sequence 742

ACTACTATTGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGGGGGGAAAA
 AGAGTTACAATTTGCCATAAAGAATGGAGAGAACAGAAATGTANCTTTTATGCTGAAAA
 ACAAATGCAAGGGCAATCCAGTTTCTAATTCTGTGCCAAAGCTGCTGTTCTTGATGAC
 CTCGGTCAAATCATTTAAATTCCTCAATTTGTTCATATAAAAGTGCTATTAACCTGCAG
 TTCCTTCAAATACTATCCAATCAATGTTGGCTACTTGATTTTCA

Sequence 743

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTATTCACAGGGGTATGCATAAA

TABLE 1
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CCAAATATACAAGAATTTAATGACAGCATTATTTGCAAACAGTGAAAGATTCTGAGCAAT
CAAAAGGTTTACTACTACAGGCATAGGTCTATAAATTACTACTGTATGGAATACTATGCA
GCCATTAATAATGAGGAAGAGGGAGAGTGCCCTGTATGCACTGACATGGAAAGGTTTC
AGTATATGGTAAAAGCAGCTCATCTTAGAACAGATTTTATAGTATGACCCCACTTGTGT
GGAAATATTTTGTGATGTGCCACTCAGTGATACGTATTTCATGAGTGCATATACAAGTGT
GTGAGAAGCAATGTAAGTAACTGTTTCACAAGGACCCCCCTTTAAGAAGGCAGAGGGGA
TCGGGGGATATAGAGTGAAGGGATGATTTTTGCTTTTTCTCTA

Sequence 744

CCGCGGTGGCGGCCGAGGTACGCGGGAGGAAAGGGCTGTGTTTATGGGAAGCCAGTAACA
CTGTGGCCTACTATCTCTCCGTGGTGCCATCTACATTTTGGGACTCGGGAATTATGAG
GTAGAGGTGGAGGCGGAGCCGGATGTNAGAGGTCCTGAAATAGTCACCATGGGGGAAAAAT
GATCCGCTGCTGTTGAAGCCCCCTTCTATTCCCGATCGCTTTTGGCCTTGATGATT
GAAA

Sequence 745

CCGGGCAGGTACACAGTAAGTGAAGGGCCAAGACTGACGGCTGATAGGACAGGGGTGACC
AGNGGTGGGGAGGGTAGTGGGAGCAGTCCATCCTGGAATCTGGCATTCAAGGGGCGCATT
GTCTGTGGGAGGATTTAAAAATAATAAACCAACTAAAGGCAGTCTGCTTTTTATGGTCA
CCAGGCCGCCAGCAATTCTAAATTCAGTGATAAAATATTCCTCCTCACTGGACACGAGA
AGCTGGCTTTCTCCTTATCCCCAGTACCTTNGGCCGCTTCTAGAACTAGGTGGGATC
CCCCCGGGGGCTGCAGGGAATTTCCGATATTCAAAGCCTTATCCGAATACCCGTCGACCC
TTTNGANGGGGGGG

Sequence 746

CGGTAATACTNGTTATCCACAGCAATCAGGGGGGATTAATCGCAGCNAAAGAACATTGTT
NAGCAAAAAGGGCCAGTCAACAAGGGCCAGGAAGTCTGTAATAAAGGCCCGCGTTGCTN
GGNCGTTTTNTCCCATAGGGCTTCCGCCCCCTTGGACGAGGCNTCACCAAAAAATTC
GACCGCTCAAAGTCANGAAGGTGGCGGAAACNCCGACAGGGACCTATNAAAGGATACCA
GGCCGTTTTCCCCCTTGGGAAGGCTCCCTNNTTGCCGCTCTCCTGTTCCNGACCCCTGC
TCGCTTACCGGATACTGTCCCGCTTTTCTCCCTTCGG

Sequence 747

CCGCGGNGGCGGCCGAGGTACATCTTTGGTGACTTTTCATTACATTTTCATGGATAATTT
GGGGAGGTGGCCTGCCANCCCTGAAGCCCTACATCCCCATACACTCTGTGCACATCCA
GTGCCCTGCTCCACCATGGCAGTGCCCGCAAGGGGGTCCCAGATGAGAAGAAGCTGGCTA
AAGGGCCCTTGTCCTCTCAGACTCCTTCAGCGGGCTGGAGTCCCTCCCTCGCTCGATTT
CGCCCGAGAGCGTTAGGGGTTTCTAAATGCAGGCGCCTTTGTGTTGTAACGAACTTTTA
GTTTAAGGGAAAATCTCTTTAAGCCACTGATTGTTCTGACTTGCTGAGTTTACTCAGCA
GCCTTATGCTGGCTCTGCCACTGCACAATAAAACCAAAGCANGACAGTTGCAGNTNAAAGC
AAGGGGGAACATGTTTTGCATT

Sequence 748

GCCCCGGCATGGTACCTGTGTGGAAAAGAATGCTTGCAAAGCTTGTACCCTCACGAGAA
TTCCTGTGACAGACATTTGCCTTTGACAGTGAAAACAGATATTAAGTGAAAGGAGAAGA
AACCGAAGAGCATCAGAGGGGACGACTGGGTACTTAACTGTTGGGGAGCAATCTGAGGA
GTTGGTTACCAGAGAACTGGCGATGGCGATCCCGTGAGCAACATCTCTCAGACCCATTT
TAAATGCCGGGGGATACTTAATCATGCTGAAAAACAGCAGAGCCCTTGAGGTTTTTGA
CTACATGTTGCAGAAAGAAAGAAGNAATTTNTACCTTNCCNAAAAATAAAATATNNNA
NNNNGGTACCTCGGGCCCGGTTTTNAAGTAGTGGGATTNCCCCCGGGCTGAAGGAATTC
GNTNTTCAAAGCCTTNTTCGATCCCCGTCCNANCTCNANGGGGGGGGGC

Sequence 749

AGGTACTTTTTTTTTTTTTTTTTTTTTTGGNCTAACTGNNNGGAGTATTTCTTTACCCAA
GATAAGTAAAAGCTACAACTCTTAGTATAAATATGNGTCCAAGTGCCTNATAACTGCTAA
CCACAGGGATCCTGAGCTCTNATAGCTTAAACACACAGNGTNNATTTTACTGGTCTACTT
CTCCTGNAGACCTAAAAGGGCCTATAGCCTCAGTAGTTGACAAAACAACATATTTAAAT

TABLE 1
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CCTCACTGATCACTAACATAACCTAAATCCCTGCTTTTGACATTAGCATGGNANACATC
CTTAGCAGGCCCTAAATAGAAATGGCCTTATAAGTGGATCCAAAGGGC

Sequence 750

AGGTACATCACCCCTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAAAGGCAGT
CAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTG
GTCAGTGTCAAGGCATTGTTCTCCTCCAATTTGACCCCAGCCTGGTGGAGCAAGTCTTT
CTAGATAAGACCCTGAATGCCTCATTCCATFGGCTGGGCTCCACCTACCAGTTGGTGGAC
ATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAG
CACTTCTACCTGAATTTACCATCACCAACCTACCATATCCCAGGACAAAGCCCAGCCA
GGCACCACCAATTA

Sequence 751

GTGTCCGGAATCCTACCCGGTGTGNNGACAGTGCCTGATAGTTTCTTCTGCCTTTCTATC
CCAAACGATTGGTCAGTTTACCCAAGTTTGAATGCAGTTTANAATCTCCAGGAACAT
CTCTTCTAGTAGTTGCCTTAGCCATCTTGTAGTTGATTTGACTTTTTTTTTTTTGTCTNN
CAGAAAGCTCTATGCTTCATATGGACTTGCATACCAATTTTTTTGTTCTCTGTTGGTCAT
GATGGTTAGCAGAGCCTGACCTCCTGTTACAATAGAAATGATCGGTTCTGGGCTACAGAC
TTGAGTCTGTTTTTTTTGTTTTTAAACCTTCCCATGNGGCAATTTGCCATATGCAAAAC

T

Sequence 752

CCGGGCAGGTACGCGGGTGAAAATGGAATAGTTTTCTAATTACAGAAAGAAAAGAAGTTG
AAGTGGGTTTTCGCCATGTTGAGCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATCAGCT
CGCCTCAGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCACGCCTGGCCAAAAT
CTTATAAATAATCCCCTTCTAATTTTCGCCAGCTTAATCACACACCAAAATTCCTTTCTATG
AGATTAATCTTCCACAACCTTCTACACTTCCTTAAATCTTTGATTTTGTCTATACTTCTT
TTTTTATATTAGCAATCTACTTTAGGACAGAAATTTACTTTCTTTCTCTTGATTTTGA
CCAAAGTCCTCTCTTAT

Sequence 753

TAGTTTTCTAATTACAGAAAGAAAAGAAGTTGAAGTGGGTTTTCGCCATGTTGAGCAGGCT
GGTCTCGAACTCCTGACCTCAGGTGATCAGCTCGCCTCAGCCTCCCAAAGTGCTGGGATT
ACAGGCATGAGCCACCACGCCTGGCCAAAATCTTATAAATAATCCCCTTCTAATTTTCGG
CCAGCTTAATCACACACCAAAATTCCTTTCTATGAGATTAATCTTCCACAACCTTCTACACTT
CCTTAAATCTTTGATTTTGTCTATACTTCTTTTTTATATTAGCAATCTACTTTAGGAC
AGAAATTTACTTTCTTTCTCTTGATTTTGACCAAAG

Sequence 754

CCGGGCAGGTACCTATATGATGTTGGCCATGCTCACTCACTCCTCCAACCCTCAGTTTAC
ACATCTGCAAAATGAGATACTTCTTTCCAGTGTTGCTGTGGACATTAGCAGGCACACAC
ATTTGGTGCTTGACAAATGAGGTCCTAAGAGGTGGGTCCCTCTCATCTTACGTGAGGAA
ACTGAAGCAGATTAGAAATGACCCAAGGAAACCACTCCGAGTTCAGTCTGGAGCCCACTC
CCCTAGGTTTTAATCATCCCCAACTCAGTCCCTATCTGCTGAGGTTCTGGATCCAGAC
GGTCTTACCAAGGAACTGTCTGTCTCACCACATGGATGGTTTTCTGGCAGAGGTGTG
CCCTGTGAGGGGGTCA

Sequence 755

GCCGAGGTACANACAAGGGGGGNACTGNCATGGGGGNGGNNTCTGGTCTTGAGTCNGTT
TGGAATTTTCTAAGTCAGGGTGGGGTGGGGGGACTGTGCACGGGTGATGTGCAGACTGGA
ACCCATCTCCCCCTCGGTCTGCAAGTTAAACAATTGGGTTGTCTTCTCAGCATCTGCC
AATGTCTCTTANTCAATCTTGGATCAAAAGGGCGTTGGAGGAGGAGGCTGGGAGGGAAAT
CCAGACAGTTCTCCGCCTCTGACATCAGGTCCAGCTGTTAGCATCGTGCTGTGGGTCCCT
GAACAAGAAGCAAAGTCAGGACT

Sequence 756

AGGTACCGCTGTGTCCGGGTGGGTGGNGNGAATGCCGTGCTCCAGGTGTTACAGCTGCT
TCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTGCC

TABLE 1

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CAACTGGGTTTCCCAAGCTATGTAAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGGG
CAGTTCCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGCA
TTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCAG
TGCACAGCCTGTGGTCATAGAAGGGGGCTACAGCTCACGCATCGTGGGTGGAAACATGT

Sequence 757

AGGTACCTCTGGATATGTTAACTGAGANAGATACTTCATCACTTACATGATATTGCTCC
CCCACAAATTTTATAACCTGAATCTAGTTATAAGGAAATACTATGCAACCCAAATTGAGG
GACATTCTGCAAAACAACCTACCTGTAATCTTTTTTTTTTTTTTTTGGACGGAGTCTCA
CTCTGTCGTCAGGCTGGAGTGCAGTGGCGCGATCTCAGCTCACTGCAACTTCTGCCCCCG
GGGTGCGAGCGATTCTTCTGCCTCAGCCTCCTGAGTAGCTGGGACTACAGGCACACGCCA
CCACGCCAGCTAATTTTTGTTGGGGTTTACCATGTTGGCCAGGATGGTCTCCATCTCT
TGACC

Sequence 758

CCGGGCAGGTACTATGGTCCCCGGCAACCTCCCCTTCCTCCTGGGAATGCTCAAATGGGA
AGGCAGCATGAAACGGTGAACAGGCAATCACTGGACAAAGTCACAAGAACTGGGCTTTAG
AAATGGTTTTACCATTAGCAGTTGTGACACCTCAGAAGTGGCAACTCTGGATCTNAATAC
CCTACCCTTNACCCTAAGNANAGGTACCTCCNCNATTTTNNCGGGGGGAAACNTTCTNNG
GAANTTNCCCTTTCCNAAAAAGGGGGGGGGGGGCTCTTTTTTTTTTTTTTGGGGGGGGG
CCCCNNCNCNCCCCCCCCNTTTTTTTTTNTNAAAGGGGGNTTNAANANANATTTCTNTNC
TCNTNTTTTTNTNANGNNAAAAANTCNGGTNGNGNGTTTTTTTTTTTANAAAAA

Sequence 759

GGCGGCCGAGGTACAAAGAAAGGACTTGATAGCTATTACCTTGCTGCTATGTTTGTTNCT
TNGNCTCACCAATCATTNTTNTGTATACCTAGCACTGCACCAGGCGCTGAGGTTAGAGAA
ATAACTAAACTGCGCCCTTCACCCCTGATGGCAGGATAGGCAAGGTTGGCACCATCGTC
ACAGCAGGACCCTCATCGATGCCTTGGTGTGTGCCTGGCATGGNGTTTGCAGCAGTTTAT
CACATNNAATCCTTACAGC

Sequence 760

AGGTACTCAGGCCTTACTGGGATTTCTTTAAGACCTCTGGGAGGAAGTGTCAGTAGCTG
GGCAGGCCTTCTTGGCAAGCATTCCTCCCTGGGTTGTGGCGGGGGCTCCCGGCCTGCTGT
GTGGCAGCTGCAGGCTCCTGGGGACCTGAAGGAAAAGCTTAACCGTTCTCCCTTCCCTTG
CTTGGCACTTAGAGCACTAGTTCATTCCAGACATACCGATTATCTTGCCTACGTGGCAT
AGAGGCCTAGGAGCCTCCCTGGGAGGAAGAGGCAGGCCAAGGTCTTGCCTGGCTGCTTTT
AGGGGGAAAGATGTAGGGAGGAAGCTGCCTTATGCTTGGATCTGCAACCTTTGCCTGGAC
CTGCGGAGCCTATTTTGGCCAGGGGGAGGGAGACAGAAATTANACCCNANGTATTNAGGT
AATCCTTTTNTTGCCTTTGAACATTGCNCGGGNGTACTTTGNAAAAA

Sequence 761

CTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGTGAAAAT
GGAATAGTTTTCTAATTACAGAAAGAAAAGAAGTTGGAGNGGGTTTCGCCATGTTGAGCA
GGCTGGTCTCGAACTCCTGACCTCAGGTGATCAGCTCGCCTCAGCCTCCCAAAGTGCTGG
GATTACAGGCATGAGCCACCACGCCTGGCCAAAAATCTTATAAATAATCCCCTTCTAATT
TCGGCCAGCTTAATCACACACCAAATTCCTTTTATGAGATTAACTTCCACAACCTTCTAC
ACTTCCTTAAATCTTTGATTTTGTCTATACTTCTTTTTTATATTAGCAATCTACTTTA
GGACAGAAATTTACTTTTCTTCTTCTTGTATTTGACCAAAGTCCTCTCTTATGCAAAAT
GAAAAATTACTCTTTTTCAACTTTCTTTACCAAAAATACATCCTCATAACTTTTTTCC
ATCTCTCCTACTTACTGG

Sequence 762

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGTGAAAAT
GGAATAGTTTTCTAATTACAGAAAGAAAAGAAGGGGGNGTGGGNTTNTGCCATGTTGAGC
ANGCTGGNCTCGAACTCCTGACCTCAGGNGATCAGCTCGCCTNAGCCTCCNAAAGTGCTG
GGATTACAGGCATGAGCCACCACGCCTGGCCAAAAATNTTATNAATAATCCCCTTCTAAT

TABLE 1

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TNCGGNCANCTTAATCACACACCAAATTCCTTTTCATGAGATTAACTNNCACAANTNCTA
CACTTNCTTAAATNNTTGTATNNTGNCCTATACTTNTTTTTTATATTNGCAATCTACTTT
AGGACAGAAATTTACTTTCCTTTCCTCTTGNNTTTTGACCAANGTNCTNTCTTNTGCAAAA
TGNANAATNNCTNNTTTTTCAACTTTCCTTACCAAAA

Sequence 763

TTAGGGCGATTGNAGCTCCCCGCGGTGGCGGCCGAGGTACATGTAATGCTCCTGAACTGT
ATGCTNGACACGGCTGTCTACNTAGGTTTTGTTCTGTGTATTTTATGACTATTTTTTAA
AAAGTAAACAAAAAGAATTAGCTGGAATACCAGCACAGGCAAACCCCTGGAGACAGAA
AGCAGGTGAGTGGTTGCTGGGGCTTGAGCAGGAGGAAGGGCGAGGGACTGCAGAATGGCC
ATGGGCTTTGCCTTCTAGCATGATGAGAATGTTCTGGAATTAGACAGTGGTAACGCTTGT
TCAACACTGCCAGTGTAGTTAATGTCACTGAATTATACACTTTAAATGGCTAACATGACC
AATTTTATGTTATATATATTTTACTACCACAAAAAACTAGCTGGCACCTAAAAACATTC
CATT

Sequence 764

CCGCGGTGGCGGCCGAGGTACTTGGATGGGTTTTGTGTGTATGTTTGTGTGTGCACTNGC
GTCCACCCTGTTGGGCTTAGTGAACTTTTGATTCAGTGATTTAAAGTTTCTCATCAGAT
TTGAAAAATTCTCAATTACTTTTTCTTAAATATTTCTCTTGCCCTTCCCCTCTCTCTT
CTTCCAGGATTCCAATTCATCGATGTT

Sequence 765

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGTTCAAGCG
ATTCTCATGCCTCAGCCTCCCAAGTAGCTGGGACTAAAGGTATCCACCACCACGCCTGGC
TAATTTTGTATTTTAGTAGAGATGGGGTTTACCATGTTGATCAGGCTGGTCTCGAAC
TCCGGCCTCAAGTGATCTGCTCGCCTTGGCCTCCCAAAAGTGCTGGGATTACAGGCATGA
GCAGCTGTGCCAGCTGGATAATTATTTAATAAATTGGGGAGCATAGGAAGCATAGTATT
TGTGAAGTGGGTAGGCAGGTGTGATGGGGGTAGGTGATGTTACATTTGGGGCATTTTGAA
GTTGGTGGTTCTTCTGAGTTGAGCAGTCAGTCACTCTTCATTTGCTGCACCTTTATCTCA
TTTTAGCCAACAGACATTGAATACCTACCAAGTCTTAGGTATTTGCA

Sequence 766

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGGCAGGTACAAGAAA
GAAAACAAATAQCAAGTATTTACAGATCCAGAGAAAGTTCACAAGAATGGGAGGATGCCA
GTTCCAATGCTTTGTAAAGTCAAAAATAGCCACATTGCAAAACAAACAAAAAAACGAG
AACGTTCCCGAGTGTGCCTCCAAAACATAAAGGAGAAAATCATACAGAAAAACCTCATGT
AAGGGTTGGAACCTTGAGCAACCAGCTATCCAAATACAGAGGGGAATCCTCGCTTAGCTAG
GGCATGGCCTGAG

Sequence 767

AGGTACACACAGTGATTTGGGGTCCTTTTTCTTAAACAGCTTCTTTATCAGGACTTTGG
AATTCTGGGTGAGATAGAAACACTGAAAACAGGGCGGAAGTTTTTCTTCTGGCTTCTTA
GTCCATGGAGGGCTCAGCGTGGAGAGGATATGCCGTGGCATTCTCCCTGGGAGACCACAC
ATGTTCCCGACAGCTCAGACCCAGACCCGCACATGCTTCTTGACAGTTNAAACCCCAAA
CCGNAGGNGCTCCCGACAGNTNAAACCCCANACCCCGCGTACCTGCCCCG

Sequence 768

CCGCGGTGGCGGCCGAGGTACTTAATAATTATAATTTAGCCATGATAGTATCTAAGCTC
ACTTTCAGAATTATTGCATACATGCCTTAGGGAAGAACCTATCCACTAATGCTTTTAATA
ACTTACATAGATTGTGTTGCGGCAAGTCAAGTTTTAATATAGAGGAAAGGGTTTATCTTA
TCATAGTAAATAGTAGTGATGTGTTTCAATTTACTATTTGCATGGTATATTATCAAGG
CTGTAAAAGCTTGAATTTGCCTTTTCCACATCTTCATTTCAAATTAATTTTTGTGAGGAC
CCAGAGAAGTGGGTAGAACCCTAAATGCCCATGNNGGT

Sequence 769

GGCANGGTACAAATTCAGGGGAGGATGGAGCAGCTGCAAGCCTGGCTGGCATCCCATGCC
AACAAAGGTGACCCAGTAGATAAGTGACAAGGTGACTGAGCTGCCTGGTGCTCTTGATAG
AATTTTCAAGTGTTAGAAAAATGTCTCCATGCCTTGCAATTTGTCTCTTGCGCCAAGCC

TABLE 1

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TAACTCAGATGGAAATGCAGAAATCACCCGTCTTCTGCGTCGCTCACGCTGGGAGCTGTA
GACCGGAGCTTGTCTAATTNGGCNATTTGGGTTCNTCCCCCGGGNNCNTN

Sequence 770

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTT
TTTTTTTTTTTGGAGNGGAGTCTCACTCTGTTGACCAGGCTGGAGTGCAGTGGCACAAT
CTTGGCTCACTGCAACCTCTGCCTCCCCGGTTCAAACGGGTCTCCTGCCTCAGCCTCCCA
AGTAGCTGGGACTACAGGCGCATGGTGCCACTCCCCGCTAGTATTTGTATTTAGTAGA
GACGGGGGTTTTACTGTGTTGTCCAGGCTGGACTCGAACTCCTGAGCTNAGGCAATCCAC
CAGCCTCAGCCTCCCAAAGTGCTGGCATTACAGGCATGAGCCACCGTGCCTGGCCTCTTT
CATATTTTTTTACACTTTTCATTTCTTCTTATTTAAGTGNGCTGGATAGGGGCTCCAG
AACAGAATTCAATAGAAAAGTTGTGACAGTAGGAACCTTATCTTGGTCCCTGATTTTAAA
GGAGGGTTNAAAAAAAAACCCCCCAA

Sequence 771

ACTTAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTT
TTTTTTTTTTGGAGAGAGGGGTTTCACTATGTTGCCTAGGCTGGTCTTGAACCTCTGGC
CTCAAGAGATCCTCTTGCCTCATCCTTCCAAAGTGCTGGGATTACAAGCGGGAGCCACTG
TGCCTGGCCTAGAAGATCTGTTTTCTTTCTCTGAATAATTCTTGTGACACTGTCTCTCC
CTCCATCTCTTTCTGTTTCTTTGTCATTTTCCAGCTATCCTTTTTCTTGNCTTGTC
CTCTTCTCCCCTCCATCCTAAAACCTTTGATCACAAGCTAGTTTCTTTCCACATCATCT
GCTCCCCTCTACTAAACGCTATTTGCCCCCACCTGCTTCAAGCTGNGCTTGCCTCTGA
GCCCCCTCTTTCACCACGGCCCAA

Sequence 772

NCTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCATGCTAGACAA
CCTTATGACTTGAAAACAAAATAATATTTGAAATGGAAATGGCCTCAGTTCCACCCCTGG
TGCCACATAGCATAGTGAACCTGCCCTGCAGCATTGCCATGAGTGCTAAGATCCTGT
GCCCATTTGCATGTCTTCTTAAACAAAAGACCGCCTTAGTAAGAAATTAGTAAACCAGG
GAGATAATCAACTTATCCCCAAAAGATTTAAGCCTCTCATTTTGTAAACCTTCATTGG
GGATTTTAAATAGAAAAGTAGGGCCCGCAGGGTGGCACATGCCTGTAATTCAGTACCT
GCCCGGCCGCTCTAGAACTAG

Sequence 773

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGG
ACATCCAGGACAAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTTGCT
TCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCT
CCTCCAATTTGGACCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCT
CATTCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGT
CATCAGTTTATCAACCAACAAGCAG

Sequence 774

AGGTACGCGGGGAGTGAACGCTCTCGGAGAACCCTTTCCACGAACGTCCACTTCAAAAG
AACGCGACGGAGCATTAACCTCTGCCACTGACCCCTGGCCTGCCTTCGCCTCCTCCTTC
CTCCTCTACCTCCTCCAGGCGCATTACCGCCTCTCTGCCTTCGGCCAGCAGTTTCTATT
TAATCTCACCGCCAATGCCGATTATCGCTCCACTGTTCACTGTCAACCCTCCTCGGGAC
GCCCGGGGTGAATCANACCAAGTTTTATTNCGAAGAGGAAGCGGAACCTCAAGCACTGTTT
CTACAAAGGCTATGTCAATACCAACTCCGAGCACACGGCCGCTCTAGAACTAGTG

Sequence 775

CCGCGGTGGCGGCCGCCCGGGCAGGTACACTACTGGCATAAGAGTAAATTGGTGAGAACT
TTCTGGAGGGGTAGTTTGGCAATGTGTTTCCAAAAATCTAAAAATTATATTGCTCTA
ATCCAGCAATTATACCTCTAGAAATTAATACTAAGGAAAATCTTAAGAATATACCGTAAA
ACTTTAGTTGTAAGAAATTTTTTGTGGCCAGGCATGGTGGCTCACACCTGTAATCCAG
ACTTTGGGAGACCAAGGTGGGCGGATCTCCTGACCTCATGATCCACCCGCTCGACCTCC
CAAAGTGCTGGGATTACAGGCGTGAGCAAATTTTAAATAAGAAGAAACAGTCAACAGCAT
CAGACATAGTAGGTATGTCCAACACCATAATGGCTGAAAAGTGCCCCCTAGTCTGGCAAT

TABLE 1
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TAGTAGGTCATTGGTTTATTAATAACCGGCATGTTAAAGTTG

Sequence 776

CCGCGGTGGCGGCCGGCAGGTACAAATCATACCTCCCAAGGTATTGCTCCATTGTGTTTT
TGTGCATTTGGTTTGGATTTTATGGGGAATTGAAGACAAGTGGATCATAAAGTGCAAAA
TAAAATGCTCTAGAAATGACAGATGGGGCACAATTTCCAAGAAAATTCATCTAGACAGTG
GCAACACTGAGAAAAAAAAGAAACATTCAAGAAG

Sequence 777

GAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTTTTTTTTTTT
TGCTAGAGATGGGGTTCACCATGTTGGCCAGGCTGGTCTCGAACTCCTGGCCACAAGTGA
TCCACCTGTCTCAGCCCCCCCCAAAGTGCTGGGATTACAGGTGTGAGCCACCACTCCTGGC
CCATGTTTAGGATTTATACCAATATTATTAAGTCTAGAAATAAGTTTCTAATAAATTATTC
CACCCGAAGTTAGGGTAAGTGAATTTAATGCTGATGTATTAAGCAGGTTCTTCCTGGGG
TCTTTTGATTCTCAAGGGATCCTTCACTGNGGGTGGACTTCAAATTAATAGGAAGCAGGA
AGGAGCCACCTGCACTGTTTTCTGACTGGGGATGACACCNAAACCTT

Sequence 778

CCGCGGTGGCGGCCGAGGTACTATGAGAATTTCAAACAAAGAATGAAGCCATAAAACAAA
AAGACTGAATATTTGGCTCTGCCTGGCTCCCAGGCTTTCTACTATTCTTGACTTGGCC
TCAACAAAATCTAAAGTGACTTGTTATTTGTGGGTGAGCTTTGTCCCATCCTTACCAGTC
ATGGCTTTAGACAAAAGACTCAGCACCCTCACCCTNTGGGACAGTNTGACTGNGGTCTG
AGNCCCCTGCTTANATATTAGGCTTAAGCTCAGTT

Sequence 779

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATGAGAATTTCA
AACAAAGAATGAAGCCATAAAACAAAAGACTGAATATTTGGCTCTGCCTGGCTCCCAGG
CTTTCTACTATTCTTGACTTGGCCTCAACAAAATCTAAAGTGACTTGTTATTTGTGGG
TCAGCTTTGTCCCATCCTTACCAGTCATGGCTTTAGACAAAAGACTCAGCACCCTCACC
CTCTGGGACAGTCTGACTGTGGTCTGAGGCCCTTGCTTAGATATTAGGCTTCAGCTCAG
TTCC

Sequence 780

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACACACAGTC
AGCATGCGCTGTAGCAATGTGCTTTGCACTGGAAGTCCCTATCAAGCATCCTAGGCAAGG
CATGCACCCCAGCGCCAGAGAGAATCAGGAAGGGGAAGGTGCCCTGAACCTCAGACAAGA
ACCCCTTCCAGAAACCACCACCAAGCCATCACTGTGTTTCCACCCTCAGACCTGTGTCT
CTTAGCTTCTTGGTAGAAGGAAAGAAGAGGAGCTTGGGTGGGGCAG

Sequence 781

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCACGGTACCATGGACAT
GCACCCCGGCCACAGAGAGGCGCACAACCTTNTACAGAACACCCTTCCACCTGGTCTTCCA
CAGCTGCATCAGATTCTGGACTGTACAGACATGACTTCAAACCTGAAAGTTGCAAGAT
CTCCTGGAACAATTTCCACAATGCATACAACCTCATTCTTAGCCTCAAGCACTGAATTAG
ACTCCATGTCTACTCCCCATGGCCGTATAACTGTCAATTGGAACCAGCCTGGNCACTCCAT
CCTNTGGANNNTTAAACNTTNAAAAANNNAANCNNNCCCCTNNGCNTTTTTAAAAANN
GGNNNCCCCCGGNNNGGAAATTTTTTTTTTAAANATTTTTTTCCCCCCCCCCCCNNGG
GGGGGGGGCCCCCCCCCCCCCTTTTTT

Sequence 782

NAATTGAGCTCCCCGCGGTGGCGGCCGCCGGCAGGTACTTCCCTGAGCAGTCGAAGTGG
ATGCCAGACCAATGGCCAGTGCTAATATCAATGCAATGATCCCAATGACGATGATTGGA
AAAAACTTCAATGGCAGCAGTGACAGGATCTGTGCAGCAACAGCATCTGCATCTGGTGCA
ACAGGACTTATTTCAAATCATCAAGGCCAAAAGCGATCGGAATGAGAAGGGGGCTTCA
ACAGCAGGCGGATCATTTTCCCCCATGGTGAATTTTCAGGAC

Sequence 783

CNATTGAGCTCCCCGCGGTGGCGGCCGAGGNCTGATGTCCTACAGTCCTCTACCTGATCT
ACGTTCACTGGAAAGTGTNGAGTCTCAGCAGGAAGCACCTTGCTCTCGTGCCGGCTAAT

TABLE 1
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TCGAGTGCTTTACGTAAGTAGAGGAATTGCTGACTTTTGGGACATTTCTGGTCTTGCCAA
AGTTCACCTTGTAGTAAAGCCCCCAAAGATACTTCCCAAATAGATGCTCTCTTGAAAATA
ACTCAG

Sequence 784

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGTCGGCCTATTTTA
TATTCTGTTTAGTGCTTTCAACCCCGAAATCCACCTTCTAACATTAATATTGATATCCAT
CCTCTCTCTCCTCCAACCTCTCTCTCTTGCATTTACTTTTAGATTTTCATTACTTTCT
TTTTATTCTGATTCTTGTAATAGTATAAACTAGATTCTTTATTTTATTTACTTTTTA
AATTTATGATTGACACATAATAATTGTATATTTATGGGGCACAACGTGATGTTTCGGT
GCATGTATACATAGTATAATGATCAAATTAGGGTAGTTACCATATCCATTACTTTAAACA
TTTATCATTTCTTTGTGGTAACAACATTAATAATCTCATCTAGAATGGCGTGAACCCTGG
AGGCAGAGCTTGCAGTGAGACGAGATGGGCGCCACTGCCTCCAGACTGGGCGGACGAGCG
AGACCTCCCNTCTCAAAAAAAAAAAAAAGG

Sequence 785

GCTCCCCGCGGTGGCGGCCGCGCAGGTACGAAATGAGAGAAATGGTTTAGTAAACGTATAA
GACATCAACATAGNAAAGTATTCTATAGGNNTATGTGTTGGAATTACAAAGATGAAGAAA
AGATACAGGCAAGTATTTGATATACTNAATTAATAATAGCAAGATGTAGAGTAGNCATGT
ATACAGTGATAGCAAGAACATGGATCCTTAAGGACAAAACCTGAAACATAATGCAAAAAA
GAAAAATATGCAAAATATTTTCGTATGATGTAAGTTGTAAATAT

Sequence 786

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNGTACNCGGGCCTATTTCTGAA
TAATCAGNCGGCTTAAATATATCCCAAAGTAGNGGTATCACAGGGTTTCTGATGAGG
ATAAATGGGCCTGAAGTGCTTATGGGCACCCACTATGTATCATGGNAAAACCTGCACGTG
TGTGTGTGTGTGAGAGAGAGAGAAAAANAATAGANAAAGTTGGTGAGAAAAGGNGAGG
CTGTTTTTGNCCGAGGGNTGTNTGGTTGGGCTTT

Sequence 787

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGNACACANTAAGTGAAGGGCC
AAGACTGACGGCTGATAGGACAGGGGTGACCAAGTGGTGGGGAGGGTAGTGGGAGCAGTCC
ATCCTGGAATCTGGCATTCAAGGGGCGCATTGTCTGTGGAGGATTTAAAAATAATAAAAC
CAACTAAAGGCAGTCTGCTTTTATGGTCACCAGGCGCCAGCAATTCTAAATTTCACTGA
TAAAATATTCCTCCTCACTGGACACGAGAAGCTGGCTTNTCCTATTCCCAGTACCTGCC
CG

Sequence 788

GGNGGCGGCCGCCCGGTTTTGGACGCGGGTNTNTGCCCTNACTTTTTTAGCGGAGCAGAG
GAAACATTATAAGGAAATATGCGAGTAGAGCTCAGGAGAAAAGCAGGACTAGAGGCCCA
AGAATCACAGGCCAGAAGAAGAAGCTGTAGCCTCGGGAATGGAAGAGCTCTCTGAAGGGG
AAAGGGGAGAACAGGAATGTNCCAGGAGCCAAGGCTCATCTATAAGGGACTTNCACATTT
AGGATGTAGAAGAAGGAAGCAGAAGCAGGGGATGACCAGAAATGGCCCCAGAGATGAGAT
GAAAGTTAGGAGAGCGGNGAGCAAGCCTTTAGGTTTCACAAGGGAAGGAGGGGAAAGTAGG
TGTTAGGTGCTGCCAAGATCAGGGAAAAATAAGCAGAAGACCAGGCCATTTNANTTGCNG
TGG

Sequence 789

CCGCGGTGGCGGCCGAGGTACCACAATCAACTCAATCACAAACATATTACAACAAAACCT
TCATCTTTTTCTTAACCCACTGTAACACAAAGCAGAGAATACAGATTAGCTTTTTTATT
TGTCTGTTGACTTCATCTCTTACATACCTCTATTTCAGTATCTATGATATTTTCTCTT
CTTATCTGTTCAATGACAGTCTTCCCTTTTAAATTTCTAACTTGTCAAGCACAGCANTT
AAAAAGTATTCTCATGTATATATTTATCTTTAGAGCATCGCATAAAGNCTGATACATA
GGAAGTTTATAGATGCATATTTACATTGGGTAGATGAATCCAGGGGAAAAAG

Sequence 790

CCGCGGTGGCGGCCGCCCGGGCAGGTACTGCCAAGAGAGACGTCTTACTGCCTCATT
AAGCATTTGGAGCTGTTAAACACAAATCAAGGCAACCAGAAAGGGCATCTTGGCTTCAGG

TABLE 1

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CTGGGCATAACCATCCCATTTGCCACATAAAAGTCTAGTGGCTACTCTGCACCCTTTCTG
GGTAGAAGCAGAGTTAGTTTGGTCATGGGGGCCCTGTGGGACAGTGTTGCCAGACAGG
TACCTCGGCCGCTCTAGAACTAG

Sequence 791

AACCCACTATAGGGNTNATNGGAGCTCCCCGCGGTGGCGGCCGCCCTGGCAGGTAAGTGN
TGTCTCAAATTTTTGGATACGCTGTCCCTCATGTACCTAGCTGCTGAGAGCTTTGTGAT
CCTAACAGGTGATGACTCAGACCGACACTGCATTGGTAGGAATCCACAAATAGGTGCCT
CAATGTGCCTAGATTGAAATATCAGCCTTTCCAGACTGACCTGATGGGTTGACTTCAGG
TGTGGTGTAAACACCTACATTTTAATGTAACATTTTCAAGTGAATCAATGAGAACTATCA
TTCTGCTTTAATCACCATGAGTTCTGAAATAACAAAGGATTTGTCTGACATTCATTCTAA
GAAATTCATTCTTACCTGACTAAGAACTTTTAACTGGCACAATAATAAGAAATGACC
TGGNAAGTACCTCGGCCGCTCTAAACTAAGGTGGGATCCCC

Sequence 792

NGGCGAATTGGAGCTNCCCAGGTGGCGGCCGCCCGGGCAGGTACGCGGGCAAATGTAA
GTTGGTAAAAGACATTGGACTCCAGCTATGTTCTTTAGAAAGAAGGTATTGGACTCTGGC
CATGTTCTTCAGAAAGACATGCCTGGCTTTTTCACGATTTGATCAGTCTTCTTAGACCC
TGAACCCACCATGAAATGGCTTCCCCAGACACAACCCGAGAGAGTTATGCTTTGTTTCT
CAGCTAAAATATTTTGCAGATCTTAATTTCTGGGTCAATTGCATCATTTTTTTTTTTTT
T

Sequence 793

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAGTATACCTTTT
CATTTAAATCATTGAACAGTTCACAATGGCTGTTGTAAAGTTTTTGCCTTGTTACTGAAA
CCATCATCTCTTGGTCTATTTCTATGGAGTTATTTTTCTAGTTATTGGCAGTTTGCTT
ATCTTTTATGTGTCTAATAACTTTTAATTGAATGTAGAACATTATGGATCTTATATTTT
GAGAATCTGAATGTTTAAATTCCTTTGAAGAGTTTGTGTTTTCTTCTGGAGGCAGTTTA
CTTACTGGCTGTGAGCTCAGTCCTGTTGAGGCTGTTTNGCGACNNNCTGTGGCTTTGTCA
GGGTGGGGTGGTGGATCAGACATCTGGTCATCAAC

Sequence 794

ACNCCCGGCCAAAAGGGAGNNCACAGGGGGGGGCCAATATATAAGGGGGGCAAGGAGGGG
GGGNNGGGNAAAGANGNCAACCCCNCCNNGGGGNNGGGGGGGAGGGGNAANAAGA
AGGNNGGGGNGNCCANGCAACCNAAGGGACNAACCCAACANNNAAGCGGGGGAAGGGG
CACGANAGANANANANNAGGNGANNCAAGAACCAANCAAGGGNNGGGGGGGAAGGGC
NNCAAANGGGNNNAANNGGCNCAGGNNACCNAANGGGGGGNNGGGGCNNAGAANGGG
GGNNGGGGNNANGGAAANNAANNCNGGANNNAACCAAGGGGAAGGGAGGGGGNNGGAAA
NCAAGGCCCCCGGGNCAAAACAAAAGNNGGGGGGAAAANACAANCNGGGNNNGGNCA
GGAGGGGAGGNNANNAGCCGCGCGNAAAAAAAAAACAANCCAGGGGCAANGGGGNNNG
GGGGNNGGCNAANGCCNCCNNGGGGNAANCCCNANGGNGNACCCNNGGAGGGNNGGGNN
GGGGGGGCNCNGAAGGGAAAAANAACCCCAAGGGAAAAANCCANGGAANGGGNAANAAG
GGGGGNGGCAAGNNGGNANCCCGNAAAAANAAGGGGAAACNNGGGGANNGNCCCAAAAC
CCNNGG

Sequence 795

CCGCGGTGGCGGCCGAGGTAATCTCTTAGGAGAAGGCTGACTTGAAGGCTGTGAAAAA
CTAAGAAAACACCAACCATTCACAGTATACTAGAATTCCTTTCAATGCATAATAGAAAC
AAGAAGGGATTAGAAAAGCATGTCATAATTTCCAGATAGCATAATTATTTACATTAAAGA
TCCAAGAGACTCAGACCTAGTAAAAGATTTTGGCCACATTGTGACATTTGAGATCACATT
AAAAAAAAAAGGAAAAATCAAGNGATACTAACATACCAATTAACATCATNAATTAGAA
AATTTATCCATCAGCNGTATTNNNNNGGGCTCAATGCNTTGAATGCCGCATTTCGGGAG
GC

Sequence 796

CCCCCCCCGAGTTTCAGCGAAAANCCCGGCCGAGGNACCNCNCCNTTACNCCCAGGNTT
ANAAACNCCNNGTNTNGNCCAGGAGAGGCGGGGANCACCGCGCCNGGCCAGCANGN

TABLE 1
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CCCCTNCTAAATNNNGNNGTNNAAGGAANCNGGACCCCAAANNCCGCCCCCAGGAAAG
GAGCCTGGGAACCTACCAGGGCGTGAGCTCACCGNGCCCGGCGCTCTAGAACGAGAAGGA
ACCCCGGGGCTGCAGGAAAAACNATAACAAGCNAANCNAAACCCGACCACCCCAAGGGGG
GGGCCCCGGGACCCAGCTGTTTGGGCCCTCAANACNAGGGAAAAATTGCGCGCTAAGNGCN
CAANCANGGGCCAAAANGCTGGNTNCCCCGGAGGGGAAAAAAGGACACTCCCGCGNCACA
AATTACCACNCAAAACATAACNGAAGCCGGNNAANCAATAAAANNNGGGGAAAAANACCCC
NGGGGGTGGCCCTAAAAGGAGGGGGGAGCCCCAACCAACAATAAATTGGGGG

Sequence 797

AGGTACTATCTCTTAGGAGAAGGCTGACTTGAAGGCTGTGAAAACTAAGAAAAACACCAA
CCATTCAACAGTATACTAGAATTCCTTTCAATGCATAATAGAAACAAGAAGGGATTAGAA
AAGCATGTCTAATTTCCAGATAGCATAATTATTTACATTAAGATCCAAGAGACTCAGA
CCTAGTAAAAGATTTTGGCCACATTGTGACATTTGAGATCACATTAAGAAAAAAGGAA
AATCAAGTGATACTAACATCACCAATTAACATCATCAATTAGAAAATTTATCCATCAGC
CGGGTGTGGG

Sequence 798

GCGGCCGAGGTACAATTCAACAATTNNTGGTCCAGGATCATGAATGGGCCATTNNTAGTT
CTGTGTGTGCTTAAACACATTTTTTTGTGGGGTGCTGTGGATGTGTGGATGTAGCCAAAA
AAAACCCCTATTGTGGGNTNGGTCCTGGGGCAGAAAGTCTGGTGCCAGAGAGTGGGGTTCT
GGGGGTCTGTCTTCATAGTTTGGGGTAGCACTAAAATCCTGTGAGCCTTTCTGGGCCTTG
GTAACCTCCCCTGTAAGTTAGCTGTTAGATAATTCAGCTGGGTAGCATTTTATACCTGGA
TGATGTTCTAAAGTCCAGCCACANAAGGCCNNNGTCTGGCAGAGTGAGAATTNCCTTTGA
AGAACCTTNAACCTGNTNCCCNAGAGTGACACAGGGGNNCCTNNGGGGAAAAANCNAAAAAG
NNNTTGGGAATTCNTNCAAAAGNAAAGNCCCATTTTTTTTTGCNNNATTNNGCCCNCG
NTAATNCCCCNCCCAAGNAAAAANNAAAAAAANTNTTTTTTTTTTTTT

Sequence 799

CGGTGGCGGCCCGCCCGGGCTTGGTACCCTCTGTACGGCTTCCCTTTGCTGGAAAAGGGA
ATTTCCCAACCCCGGGTGAGGCAATGCCCGCCCTGCTCCGTGGGCTGCACCTGCTGTCT
GTCAAGCCCCAATGAGATGAACCCTGTACGCGGGGGCCTGGGATCTCAAATGGCGGCC
CGTGCGGAAACAGCGTNTGGGAGCAGANATTGTTGCCTCTGAA

Sequence 800

GGGCGNTTTGGAGCTCCCCNCGGTGGCGGCCGGGCAGGTAATCTGGAACNTGTAGCTT
CCTTTNGCACTGCAGCATGGGAAGCCAGAGTTGATGATTCATACACCAGCATTTACATTT
TTCAGCATGAAAGTGGTATGTTCTTCAACTCACAACCCATTGGCCAGAACCAGTAACATG
ACTTCACCTAACTGCAAACTAGCTGGAGAATTGTGGGAGAGCTCATGG

Sequence 801

CCGCGGTGGCGGCCGAGGTACCATTTAGCACACAATTTCCATGTCCCAAAGCAACCCCC
ATAAACAGTGACTATTTTTATGCTGTTTTCTTTGCCCAACACTTTTATCATTTGATA
TGTTATATCTTGCTTTTTTTTTCTTTTTAATGGAGTCTCACTCTGTCACCCAGGCTG
CAGTGCAGTGGCGGATCTTGGCTCACTGNAACCTCTGCCTCCTGGGTCAAGCAATTCT
CCTGGGGGGTGGGGAGGTTTGCAAGTGATCCAAGATTGCGGCTCTCACTCCAGACTGGG
NGAAAGAACGAAACTCCATCTNAAAAAAAAAAAAAAAAAAGTACCTNCCCGGGCCGG
CCGCTCTANAAC TAGTG

Sequence 802

CCGCGGTGGCGGCCGCGCCGGCAGGACGCGGGATGGTGTCAACTTATGTCAGGAACCATG
GGCCCTCCCCATGCACACAGCACTCTTGAATCTCATCCTTTTCCATGGCTCTGGCTCAC
ACTTCCACAGCATTTACTCCTAAATATGCCCCCTGGGTTCAAGGGTGATTCTCGTGCCTC
AGCCTCTCAGGTAACCTGGGATTACAGGCATGCACCACCATGCCTCGTATTTTTTTGTGT
GTGTGTTTAGTAGAGACGTGTTTCACTATGTTGTCCGGGCTGATCTCCAACCTCTGTAGT
CAAGTGATCTGCCCCCTCAGCCTCCCAAAGTGCTGGGATTATAGACATGAGCCACCACA
CCTGATGTCTGATGCTTATTTATTATGTGACCTTAGCGAAGTGTTGGGTAGTCATTAGTGC
TGGTCTATCTCTATACCTTCCCCAGGCAAGGTAGGATTGCACTTCCCGTCCACT

TABLE 1

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Sequence 803

AACGACCGCCCGGGCAGGTAAGCCAGGACCTCAGTTAGCACTAAGCACTCTTACTAT
TGCCCCACCTGGCACAAAGCAAAGTGAATCTTAGTTGGGCCATCATGTGTCATCTGA
TTGTCTTAGAAGTTCTTTTTTCTAAGACAGAGTTTTGCTCTTTGGCTCAGGCTGGAGT
CCAATGGCACAAATCTCGGCTTACTGCAACCTCCGCCTCCAGGTTAAAAGCGATCCTCCC
GCCTCAGCCCTNCGAGTAGCCGGGACCACAGGCACCCGCCACCACGCCCGGNTAACCTT

Sequence 804

TACTATAGGGCGAATTGGANCTCCCCGCGGTGGCGGCCGCCGGGCAAGGTAAGTCTCTAT
GACTATCAAGCTCAGGCCTCTCCCTTTTTTAAACCAAAGTCTGGCAACCAAGAGCAGCA
GCTCCATGGCCTCCTTGCCCCAGATCAGCCTGGGTGAGGGGACATAGTGTCATTGTTTGG
AAACTGCAGACCACAAGGTGCGGGTCTATCCCACTTCCTAGTGCTCCCCACATTCCCCAT
CAGGGCTTCCTCACGTGGACAGGTGTGCTAGTCCAGGCAGTTCATTGTCAGTTTCCTTGT
CCTCATGCTTCGGGGATGGGAGCCACGCCTGAAGTAGAGTTCAGGCTGGATACATGTGCT
CACCTGCTGCTCTTGTCTTCTAAGAGACAGAGAGTGGGGCAGATGGAGGAGAAGAAAGT
GAGGAATGAAGTAGCATAGCATTCTGCCAAAAGGGGCCCCAGNTTCTTAATTTAAGCAA
CTAAGAAG

Sequence 805

CCGGGCAGGTACAATGGACTTTGACAGTCTTCCCAAACAGATCCTAATTTTAAACATTA
GGTTTGCTTTGATTCTTTTCTTGGGGCTAAGAGCTCACAAAGACTTAGGTTCTGGTCAT
GGCTCCAGAGGCCACACATTCCAGGACAAAGTCTCTCTACAGTCAACGCCTTAGTCCCAC
ATCTGTAAATCGGAATAATCATCCCTGATCCAGCTATCACATTGCAGTAGAGTGAGACT
CAAATGAGATAATGGAAGACAGTGGGAATGATCATTTCCAATTGGCCTGGCTGACCCAT
TCCTTGTTCTAAAGTCAGCTCAGGTTTACCTCTTCCAGNGAAGTTGACCTGGCACTTTC
TTTTAGGATGGCTACTGCTCCTCTGGGTGCCCGGGGCTCANTGTCTCCCCATCACCGCC
CATGGCACACTTGGAGTGACTGGTCCTTTACTTTGNTT

Sequence 806

TNCGGGCAAGGTACATTGGCCCCAAAGAGNAGGAATTCCTTGTAAGAGGAGCTTGTAGATG
CTTNCCCTCCAGCGGAGAAGCAGGCCAGAGAAACCTCCGAAGCGGGCCTCCGCCACTTTG
AGAGTGATGAAACCGTCATGGTGCTGGGAGCCTGGGGCAGGAGGTACAAGAGTTGCC
CCAGGGCTGTCGTTTAGTTCTCCAGACAACCTCCCTTCCACTCTGGTCTCACACACCCCA
GCCTTCACCCTGCGTCAGTGGACAAGGGGGTAGGAGCCTGCAGAGCAGAAAAGTACCT

Sequence 807

AGCNCCACCGCGGTGGCGGCCGANGTACGCGGGATATGTAGAACTTCACNNGTTTGAAGT
TGGCTGATTAAATATACTAAGTATTACTGAATCACTGCCCTGCCCTTTCTGCTTTCTTTA
CAGACCTGTTTAGTATACACTGTATGTATTTTTTTTTTTTTTTTGGAGACTCCGTCTCAA
AAAGAGAAAATTATGGGCCGGGCACAGTGGTTCATGCCTGTAATCCAGCATTTTGGGAG
GCCGAGGCAGGTGGATCACCTGAGGTTGGGAGTTCGAGACTAGCTTGGCCAACATGACGA
AACCTGTNTGTACCTGCCCG

Sequence 808

CCGCGGTGGCGCCGAGGTACGAGACTTGTACCATGTGACATGGCAGCTTCAGAACTT
AGCCACTGCCAAAAAAGAGCAGGCAGGGATAATGTTGTCCATTGTCCAGTCAGAGAGA
CCTGTTGAGTCTCTAGTTTGCCAGTCCCCAAGAGACCTTTGGAGTTTGTGGAGCCAGA
CATCCTGCTTAGAGATGAGGAAGATCCTGCTGTTCCGTGGGGAGCTCTTGAGACACCCGT
GCCACCACCCACCTTCTCCTGATTGCCACTTGTGTCCTTTTCCATTACCCTCTCCTGA
CTCCATAAACATCTTCAAGTCTTCCCTTTCTCCACCCCAAAAAATGCCACCTTGAAAG
GG

Sequence 809

AAATTAATTGGGGTTGNGCTAACTGCCCGGTTTTCAATCNNGNAAACCTTGTGGGGCCCA
NNTGAATTAANANAATNGGNCCACCCCCCGGGGAAAAGGGNGGTTTTNNAANTTTTGGG
GCCTTTTTCCCTTTTTTAAAAAA

Sequence 810

TABLE 1
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CCGCGGTGGCGGCCGCCGGNCACGGTACGCGGGGATGTCTTCTGAGAGAGTCAGGGCAG
CTGAAGACTGGGTGAGGGTGAGGGAAGCCGCTGGTGTCTCCTCAGTCACCCGTGAGAGG
ACTCCTNTGTGGAGCTAATCAACTGCAAGGAAGATTGTTCCAGTGTCCAGACCTGAAGG
AGTCTGGACCCATAGTGCANTGAGATTTGGGGAAGGAAGGATTCCGGATAGGGGTGAGCT
TTNTGNTGATAAGCAAATGTGAAC

Sequence 811

CCGCGGTGGCGGCCGCCGGGACGGTACGCGGGGGTGTATGGGAAGCCAGTAACACTG
TGGCCTACTATCTTCCGTGGTGCCATCTACATTTTGGGACTCGGGAATTATGAGGTA
GAGGTGGAGGCGGAGCCGGATGTCAGAGGTCTGAAATAGTCACCATGGGGGAAAATGAT
CCGCCTGCTGTTGAAGCCCCCTTNTNATTCGGATCGCTTTTGGCCTTGATGATTTGAAA
ATA

Sequence 812

CCNTCAGGTACCAGANCTTAGCAGGGATTTTGGACAACAAAAGCTCTAAATCCTCTTGCA
TCGACACGTTCAATTTGCACTGACCAATCTGTTGGCACAGTAACTGTTTATAAGCTAAAT
TTCTACATTTTGGCTACAAGTATCCCAAATCCACCTTTAAAAAATCCTAGGTAGATGCC
ATCTGGTGTTAATGATTTGCACACCCCTTAAATTGAAAATATTTTAAATAAATCTCACGG
TTTTATATAGTATCATTAAATGTGTCTATTTTAAAAAGACAATCTGAGAATAACACTTCCC
CTAATTGTTGTCTTAATAATGACCAAGAGCTGAGGAAAAATGATTCACTGTTAGTTGT
TTTGTGTTTGTCTCACGGGGGAAGGGGGTGAAGTACTGGCTGTGCCTGGGTTTG

Sequence 813

CCGGGCAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAAA
GGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTCC
GTGTCGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTGGTGGAGCAA
GTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTG
GTGGACATCCATGTGGCAGAAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAGC
ACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTCCAGGACAAAGCC
CAGCCAGGCACCACCAATTACCAGAGGAACAAA

Sequence 814

CCGCGGTGGCGGCCGAGGTACATTATTCATATCCAGCACTCCCTGCGGCTGCTGCTGGAG
GAGCAGTTATCCAACAAGGACTGTTTCAACCTCATCGCGTTTGAAGCACAATTGAAAGC
TGGAGGCCTGAGATGGTTCCCGTGAGTCACAACAATTTACAAAGTGCCTGGCGGTAGGTT
ATGGGCAGAGACTTCGTGGGGCTGTGTCTGAGGGAAGGTTTGAGGCATTGTTTTCTGT
TCCCCCTCTCCACCAAGAAGTAGCTCTCTAGAGTCCCTGACCCCAAACAGCCATGGGCAG
AAATCAGAAAACAGCTTCTTCTGTCTGCTGCTCTCCCCACCTGGCCATCTTCACTTTAT
GAGAGTAATGACATCGACTCCATCACGTCTGAGATGGGAAAAAGGCTCTTCAGCTACTCC
CAAAAGGGTATGCCCTGGGCATGGG

Sequence 815

CCGCGGTGGCGGCCGAGGTACTCTTTTTTTTTTTTTTTTTTTTGGAGACAGGGTTTCTGTT
GCCCAGGCTGGAGTGAGTGGCACAATCTCAGCCCACTGCAGCCTCCGCCTCCCCAGTTCC
CAATAATTCTCATGCCCTCAGCCTCCCAAAGTGGTGGGATTACAGGCGTGAGCCACTGCGC
CCGGCCACCTTTCTATTTTCTGGTTAACTTTCTAAATGTTTGAAATGGCTTCCAGTGAA
TTTCATTTTATTATTGGGGGAACTTCCATACTTATTTTCTTCTTCCCAAATCTCCACA
AGTATACTCTCCTCCCAAATTTAGATAGTTGTATTTTCTGATTATTCCAAATAAGAGT
GCTGAGAGGCTAATCACAAAGAGCAACAGCCAGAGATTTACAAAGTGGTTCTCTTACTAT
TGAACATTTTCACTTAT

Sequence 816

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTGCCAGGTAAGATCAC
TCGTGGGTAAGAACATGAGGTTCTACCCGTAAGGCAGGATTTTATAGAAGGAAGGTAG
GTCTTTCAACCTATGTCCTCCTTCTGTTCCACAAAGTGGAAGCCACAAGCCCTACAAAA
GCCTTGCAAGTCCCAGAGGCTGCAGCCGTATTTATTCTTCAGGCCAAGACTCTCAGGACA
GAGAGCACCCATGCACCCCGCAGGCTGCAGGCCATCTCCCTGCATTTGGGACTGTCCTGA

TABLE 1
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GGATGGCGGCTTCATTTTTGTCCCTCCTACCTCTGA

Sequence 817

GAACCTAGGGCGATTTGGAGCTACCCNCGGTGGCGGCCGAGGTACATTTTGGCAAACCGT
GAAGGGCTTTTNTTTTTNGCAGTTGGACTTCCCCCCCCTAGTNGGCAGGATTTTTTTTAG
GGGACCACCTGAGAAAGGTCTGTTACCGTGCATAAACCTCCTTTAACACCTTTTAAAAAC
TCTTCTGGGGGCCGGAAGTCACTGAGTGCCTGTAATCCCACCACTTTGGGAGGCTGAG
GCAGATGGATCACCTGAAGTCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAACCCCG
GTCTCTACTAAAAATAGAAAAATTAGCCAGGAGTGGTGGCAGGTCCCTGTAATCCCACT
ACTTGGGAGGCTGAGGCAGGAGAATTGCTTGAACCCAGGAGGC

Sequence 818

GCCAGGAAACCCGTAAAAAGGGCCCGTGTGTTGGCGGTTTTTTTCCATAAGGGTTTCCG
CCCCCCTTGACCGAGGCANTTAACAAAAAATNGACNGCTTCAANGTCAGAAGGTGGGC

Sequence 819

CCCCCGGTGGCGGCCCGCCGGGCAGGTACTGGGAAATGAGGCAAAGTNTNTCTCTTCA
CTGCTAGCTCCTTGGGGACCAGCAAGCGGCTCTCAAGTTGCGTGGTGGCCCACTGGAAA
AAAGGCAGTTCGGTGCATCCTGGGAATATCCAGGTGAAAGTGTGAGATTTACCTAGAATA
GCTTCTGGGCCTCTGGGGTTTTACGCTGTCTCTGGTGAAGGTGTCCATTTTAGAAGTGA
AGCAAAAAGGTTTCAATCCGTTCCGTTTTCTTTGTTTTAGCACTTACCCAGNNNCCTCC
ATAACAAAGGTGGNGCCCTTCAGGGAAATTAATTTTTTTTTTNTAAAGGCCTTGGCAT
TAANCCNTTTTTTTTGNNGGNNGGGNAANTTTTTTTTTTTT

Sequence 820

TAGGGCGNTTTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACAT
CCAGGNCAAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACGCATTCCGCTTCTG
TCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTC
CAATTTGAGCCCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATT
CCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATC
AGTTTATCAACCAACAAGCAGTTCCAGCACCCAGCACTTTTTACCTGAATTTTAC

Sequence 821

CCGCGGTGGCGGCCCGCCGGGCAGGTACGCGGGCATGCAAACTCCAGATTCCTATCTTC
TTTGGGGGAAAAGCAAATTGGAAGCTCTGACAATGCTGGGCTTACTTTCCACATAGCA
ACCATCAGTTGGAGCTGAGACACCTCTGCTCTCTTTAGAAAGAATTATTAATGCTTCAGT
CTCCATTATTGCTTCCCTAACAGTGAGGATAAGTTATTGGCATCAANCCTGGCCGGTTTA
NCTTGGGGGTTTATTTTNTNNNTTTGGGGCCTNAAAACCCCGGGGGGNNCCTTTTTGGCN
CNGNGGGGGGGGGGAANTNTNNNANNANGNNGGGGGGGGGTTTNTCTCNNCCCCCCCCCA
CNTTTTTTTTTTTTTTTTTT

Sequence 822

CCGGCAGGTACGCGGGGAGGTTCATGCCCGTGTGAGCCAGGAAAGGGCTGTGTTTATGGGA
AGCCAGTAACACTGTGGCCTACTATCTCTTCCGTGGTGCCATCTACATTTTGGGACTCG
GGAATTATGAGGTAGAGGTGGAGGCGGAGCCGGATGTCAGAGGTCCTGAAATAGTCACCA
TGGGGGAAAATGATCCGCCTGCTGTTGAAGCCCCCTTCTATTCCGATCGCTTTTGGCC
TTGATGATTTGAAAATAAGTCCTGTTGCACCANATGCAGATGCTGNTGCTGCACAGANCC
TGTCATGCTGCCATTGAAGTTTTTTCCAATCATCGTCATTGGGATCATTGCATTGATA
TTAGCACTGGCCATTGGTCTGGGCATNCACTTTCGACTGCTCAGGGAAGTACCTCGGCCG
CT

Sequence 823

ACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGTGTT
AGCTATTATCATCACCTCCTTGCTAGGCAGAGCAGGACAGTGGGGAATTGATGTTTCTC
CCCCTCCATCTCACAGGTGGGGCAGGGGTGTGCTGAGAAGAGAACTTGGGACTCTTGGCC
CCTGTTCAATTCTCTGCTTAACCTGCTAGGCAATTTGGGCCTCTGAAAATTCAGTAATCC
TCATAGCAACTTAGACGTCACCTGGGCCTGTGGTCCCCTTCTAGCCTAGGAGTCAGAGC
ATGAAGCTCCATCTGTCACATTGGTTTGTTCAGAGAACTACACATGCGTTTTATTTAGC

TABLE 1
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AGCATACAGGTTCCCACTTAGGCATTGAGAGGACATAGGAAGCTGTTAACTTCCTA

Sequence 824

ATCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAGTTATTTTA
AATTCCACTCATAACTTATCGGCCAAAAGTAGTCACATGGCTCCACCTAATCACAAGTGG
AGCGGGAAGTGCAATCCTACCTTGCTGGGGAAGGTATAGAGATAGACCAGCACTAATGA
CTACCACACTTCGTAAGGTCACATAATAAATAAGCATCAGACATCAGGTGTGGTGGCTC
ATGTCTATAATCCCAGCACTTTGGGAGGCTGAGGCGGGCAGATCACTTGACTACAGGAGT
TGGAGATCAGCCCCGACAACATAGTGAAACACGTCTCTACTAAAAACACACGCAAAAAA
TACGAGGCATGGTGGTGCATGCCTGTAATCCAGTTACCTGAGAGGCTGAGGCACGAGAA
TCACCCTTGAACCCAGGAGGCAGAGGTTGCAGTGACCGATATCATGTCACTGCAGTCCAG
CCTGGGTGACAGAGCGAGACCTTGTCTNAAAAAAAAAAAAAGAAA

Sequence 825

CCGCGGTGGCGGCCGAGGTACAGATGTATGGATCTCATAGCATTGAGGGGTCTTTCAGAT
TATGTTTTCAAACCCCTCACTTTCTCTTTTCAGATAAGACCACAGCGACCTGGGAAAGTG
CAACGTCTTAGCCAAAGACACAGAATATTTAGCGACACTGTCTAGACTCTAGTTTCCAT
GTCTCCTGACTTCAGTCTAGTGTTCACCCCTGCCGCCACCCCTGCCCATCCTCATT
CTCCTGTAGGAGAGGCCAGACCTTTGCCTGCTGCAGCTTGTGGCTCTTCTCCTGCCTTCA
GTTNTTCCATTGCCTG

Sequence 826

GGGNNAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGCAGGTACCTGTCTGGGCAACACT
GTCCCGNNGGGGCCCCCATGACCAAACTAACTCTGCTTCTACCCAGAAAGGGTGCAAGT
GGCCACTAGCACTTTTATGTGGCAAATGGGATGGTTATGCCAGCCTGAAGCCAAGATGCC
CTTCTGGTTGCCTTGATTTGTGTTTAACAGCTCCAAATGCTTAATGAGGCAGTAAGAGA
CGTCTCTCTTGGGCAGTACCT

Sequence 827

CNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGTGGTGTGGCTACTACCGTTACA
ACTGCCTGTGCTTGGACATGGACCCTCTGCAATATGCGGCAGTTTCATTCAATGCCCCCT
ACATTCTACACCAAGTAGAAATGGAAGGCAATTGGATACTTCACAGACAAGATCTAAGTG
GAGAAGGAATGCGTCCTGTGGCTGCAGAGATCCTTGGAGCTTGGAGGGGAGAGCTTGAGC
CCACTGATGATGACCTCCACAGCTCGCCAACCTCAGCCCTCCCTAAGTCCCCATCGGGG
GCCAATTCTCACTCTGGGGTTGGGGGACTCCACCATAGCTCATCCATCATAGGGGATGT
TGGTATCTACTGTGGGTTTGGGTAGGGCCCGATGTGCTGAGGATGGCTCCCCACAAGCA
AGAGATGTGGGATTGG

Sequence 828

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACA
TCCAGGACAAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCT
GCCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCT
CCAATTTGGACCCAGCCTGGTGGAGCANGTCTTTCNAGATANGACCCTGAATGCCTNAT
TCCATTGGGCTGGGGCTTCCACCTACCAAGTTGGGTGGGACATCCATGTGACAGAAATGG
AGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTNTACCTGAATTTTA
CCATCACCAACCTACCATATTCCCAGGACAAAGCCAGCCCCGGCCCCCCCC

Sequence 829

CGAATTGGAGCTCCCCGCGGNGGCGGCCGAGGTACCTGATCTACTCCTCTCTACAACAAC
CTTGTGGGTGACGTTATTATCTCCATTTCACAAATGAGGCCACAGAGGTTCTAAAGGGTA
AATGACGATGATGATGAGAGGTAAGTGATAAAACAATGTCTCCTGACCACAAATCCTGGA
ATTTAAACATAAGNGTAGTAAACATGAACTCTAGGAAGCCTCCTGGGGCTTCTNCCTGTG
TCTGGAGCCCCTGCACATGCCCAAAGGAAGTCTTTTGGTTCTNCGNTCAGNAGAGAAAAG
GGNGCATTTCATAAAAGGGAGGTGGGGAAACAAGACTGGTGGTAGGG

Sequence 830

CCGCGGTGGCGGCCGAGGTACATTATTCATATCCAGCACTCCCTGCGGCTGCTGCTGGAG
GAGCAGTTATCCAACAAGGACTGTTTCAACCTCATCGCGTTTGGAAGCACAATTGAAAGC

TABLE 1
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TGGAGGCCTGAGATGGTTCCCGTGAGTCACAACAATTTACAAAGTGCCTGGCGGTAGGTT
ATGGGCAGAGACTTCGTGGGGCTGTGTCTGAGGGAAGGTTTGCAGGCATTGTTTTCTCTG
TCCCCCTCTCCACCAAGAAGTAGCTCTCTAGAGTCCCTGACCCCAACAGCCATGGGCAG
AAATCAGAAAACAGCTTCCTTCTGTCTGCTGCTCTCCCCACCTGGCCATCTTCACTTTAT
GAGAGTAATGACATCGACTCCATTCACGTCTGAGATGGAAAAGGCTCTCAGCTACTCCCA
AAAGGTATGCCCTGGGCATGG

Sequence 831

CCGCGGTGGCGGCCGAGGTACGCGGGTAACAGGAGTCTTTGCTGAGTGATCATCTGTTTA
TTCTTTTACTCCACAAATATCGAATGTTTACAGCGTGCCTGGCACTGAGCAGGGCTGGGG
TTTCCTGACCATATGGACCTTCCTGGGTATATCTGTGGGGCTGAATGGTGTGTGACCTT
GTGTCCTGCCCC

Sequence 832

CGGGCAGGTNCGCGGGGGTGTTTATGGGAAGCCAGTAACACTGTGGCCTACTATCTCTTC
CGTGGTGCCATCTACATTTTTGGGACTCGGGAATTATGAGGTAGAGGTGGAGGCGGAGCC
GGATGTCAGAGGTCTGAAATAGTCACCATGGGGGAAAATGATCCGCCTGCTGTTGAAGC
CCCCCTCTCATTCCGATCGCTTTTTGGCCTTGATGATTTGAAAATAAGTCCTGTTGCACC
AGATGCAGATGCTGTTGCTTGCACAGATCCTGTCACTGCTGCCATTGAAAGTTTTTNC
ATCATCGNCATTTGGGATCATTGCATTGGATATTAACCCCTGGNCAATNGGCTTGGGCATT
CAATTGACTTGNTAAGGGAAGTNCCTCGGCCGNTNTANAAGTAGNGGGATCCCCCGGCT
GGANGAATTTCAATTTNAACTTATTGATACCGTCCANCCTTGNGGGGGG

Sequence 833

ACCGCNGTGGCGGCCGCCGGGCAGGTACATCACCCCTGCTGAGGGACTTTTTNNGGACAAG
GTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACC
AACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGAC
CCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTG
GGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTTATCA
AC

Sequence 834

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACCTTACCACCC
CATCCCCAGAGCATTGCATGGGGTGTTTGGCACACAGTAGGTGCTCAATGTAAACGTGTG
CACTGTGGCATGTTAGAGCCAGACAGGATCTCATCCAGCCCGTTCTCTGCACCCCTCCCT
CCCCTCTCCAAGTAGCCCTGCTGTGGGTTCAAGTAAAGAGGGGCTGGGGCGCTGGTCTGA
TTGTGTGGGTGATTTGGGGAGATCTCTCCTCTTCCGGAACCCCAAAAGGTTGGGACAAA
CACAGCAACAAGCCCAGCTCCCTGAATTCAGTGATTCATTTGTGGGGATAAAGGAGTGA
ATG

Sequence 835

CCGCGGTGGCGGCCGCCGGGCAGGTACTAGTTATTTTAAATCCACTCATAACTTATCG
GCCAAAAGTAGTCACATGGCTCCACCTAATCACAAGTGGAGCGGGAAGTGCAATCCTACC
TTGCCTGGGGAAGGTATAGAGATAGACCAGCACTAATGACTACCACACTTCGCTAAGGTC
ACATAATAAATAAGCATCAGACATCAGGTGTGGTGGCTCATGTCTATAATCCAGCACTT
TGGGAGGCTGAGGCGGGCAGATCACTTGACTACAGGAGTTGGAGATCAGCCCGGACAA
TAGTGAAACACGTCTCTACTAAAAACACACGCAAAAAAATACGAGGCATGGTGGTGCATG
CCTGTAATCCCAGTTACCTGAGAGGCTGAGGCACGAGAATCACCTTGAACCCAGGAGGC
AGAGGTTGCAGTGACCGATATCATGTCACTGCAGTCCAGCCTGGGGTGACAGAGCGAGAC
CTTTGTTTCAAAAAAAAAAAGAAG

Sequence 836

GNGGNGGCGGCCGAGGTACTTTAACANGCCATACTCCAGTCCCAACAATGTTAAATGCCA
AAGCAGTGTTGGTAAAAGCCTCAAATGGTGAAAAGGACAGAAACTCAAACCCGCCCTTGT
GCCAGTAAGTAACTGTTACTTATCTACAAAGCGCTTGGCTCTGGAAACAATCTAACTCT
GAGCTGCACGTGGAGTCTACATGGGAATGTGCAAAGCATGTATTTCTTTTAGGTGCAGC
AGAGGTAACCGAAATTCAGATAAGAGAAAAAAATCCAGATTTCAATGCAAGAGGTGGAA

TABLE 1

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GATCCACGAAGATACTCGTTACTATTTGGTTTCTAGGAGCAGGATTGCCACTAGATATGA
TGGAGAACAAAAATGAAGAGGTGTTGTGTAACAAAACAAAACAAAACAAAAAGT
AGAAAGAAAGAGCAACAGGCCGGGCCGAGTANCTTCATGCCTGTAATCCCAGCACTTTT
GGGGAGGCCAG

Sequence 837

NTTGCGTTGCGCTNACTGNCCCCGCTTTCCAGTNCGGNGTAAACCTGTCGTGCCAGCCTG
CATTAATGAAATCGGCNCAACGCGCGGGTGAGAGGCCGGTTTTCGTATTTGGGCCGCTCT
TCCCGCTTTCTTCGCTCACCTGACTCCGCTGCGCCTCGGGTCGT

Sequence 838

CGCGGTGGCGGCCGAGGTAAGGTAAGATAACAATAAGCAATCCAGNAATNCCTCT
TTGAAGAATTTATTCTGATGAAATAGAGACAAGCCTATTAAAGTATTCAAGGCAACATTA
CTTAAATATTTTATTTATTTATTTATTTATTTAGATGGAGTCTCGCTGTTGTTGACCAGG
CTGAAGTG

Sequence 839

AGGTACCTGTAGTCCANTTACTTTGGAGGCTAAGGTGGGAGGATGGCTTGTGCCAGGA
GGCGGAGGTACAGTGAGCCGAGATCACACCACTGCACTCCAGCCTGGGCAATAGAGCCA
GGCCTTGTCTATAAATGAAATATAAATATAAATAAATAAATAAATAAATCGTTGTTGGC
AAAGATGTATTCAAATAGTATGTAGAAGTACCTGGAAGGTAATTTGCAATATTTACC
AAAATATACTTTTTCATCTAGTAAGGTCTCCTTCTCAGAATCAGTCTTAAAGCCATTCAA
ATACAGATTTATGATTAAGATTTAAGTCCAAAAATGCTCATTATAGCAATATTTATAAT
AGGAAAAATTGGGGAAAAACAATTATACATCCAACAGTAGTAAGAGTGTGACTACATTAT
AGTATTAGTATGTAATGGGATTGTCACAGAGCAACACACATGTTTTGAAGAATATTTAA
GGGCGTGATAAATATTAAATGTAATGTAATGAAAAATGATATCTGTAGATTTTCAT
TATGCATTTCTTTATGAAATTTTNGATATACAAAAAANAATAGTCATGATTTGCTT
CATGACGGGGACATATTTCTGAGAAATGTGCTGTTAGTCGGTTTC

Sequence 840

GGCGGCCCGCCGGCAGGNACANCTTCCGTGGGGGGGCGNAAAAACCCCCACCNAANCAA
AANAGCANCAAAGGAAGATTNNTTAAGGGCAGGGGGGGGAAGCCCCNAAAAACCGANG
GCAANNCCAGAGCNGNGNNAGCNCNAGNNNCNGGGAAGAGCAANCANNACCTTTTG
TGAGGTTTTNGNGNNGGAGGGGGGAACCCCCCGANAAAAAACCCAGNAGCCCCCCCCA
CNAACAGGGGANGAANAAGAGGAAGGNAAGGANNNAANNAAGAGCCACAGNCCNGGAA
ACANGAAANCANNANNCAGACANGCCNNNGAANANGNNGCCNACNNNAAGAAAGNNN
GGNGCGCCANNGGGGAGNAAANNGGAANNANNAAAAAAAGGAAANGNGAANGAAN
GAGGANAANANNNGGGGAGGGNAAANGGGGCGGGGNNNAANGCCNAANAANANNNAGN
NNNNGGGGAGGGCCNG

Sequence 841

AGGTACCTTACCACCCCATCCCCAGAGCATTGCATGGGGTGTTTGGCACACAGTAGGTGC
TCAATGTAACGTGTGCACTGTGGCATGTTAGAGCCAGACAGGATCTCATCCAGCCCGTT
CTCTGCACCCCTCCCTCCCTCTCCAAGTAGCCCTGCTGTGGGTTCAAGTAAAGAGGGGC
TGGGGCGCTGGTCTGATTGTGTGGGTGATTTGGGGAGATCTCTTCTCTCCGGAACCCC
AAAAGTTGGGACAAACACAGCAACAAGCCAGCTCCCTGAATTCAGTGATTCATTTGT
GGGATAAAGGAGTGAATGATAAAGTGAAGGACGACTGTCCCCGCG

Sequence 842

TAGGGCGAATTGGANCTCCCCGCGGTGGCGGCCGAGGTAAGGCTATGAAATN
GGGGAAAACCCAGGTGATTCATGCCTGCTTAGCTGCAGNATNTCAGTNGCANTAGGTGG
AACCCCAAACCCAGNGCANAGTGCCAGNGTCTGCTTNGGTGAGATATGAGTGTCAAGTCT
CGAACCAAGCAACCTATCNAAAGCCTGNGACACTCCTGGCCACAGGCGGNTGGTANAGGC
ATAGNANACTATTGCCAGGTGACGTGACTTCACAGATGCTGGGAAGCCTGCTGCCCCAT
CCAATACAATACTGCCACTGTGCATAGAAACCAGATTCAAAGTTAGAGCTTCGTTTTG
GCCATGAGTGCAATTTCACTGCAATGTTTTATCTTACTCAACTGCCAGGGTCAATTTAGG
TGGTAGGGCTAAATCTCCTTCTTTATATTGGTCCAAATGATTTTCTGATGCTGCATTC

TABLE 1
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CCGGA**Sequence 843**

CCGCGGTGGCGGCCGCCCGGGCAGGTAAGTGTGCTTAGACCAGGAACACAGGGAGGTAGAG
GGCAGCAGAGCAGGGACTGGCTTCAGAGCCAGACAGGTGGCTATGTGACTTAATGTGTCT
GAACCCTGGTATCCTAGTCTATTAAATGGTATAACAGCAGCTTCTAGTATGTAAGTTCCT
TGTCGGGAGAAAACTGTTTTGCTCATGGCTGGAGCCTTAGCATGTTGCATCATATTGAA
CATGTAATAGATGCTCAATAAATATATTTTAAAGAATAAATAAATGTAAATGAAAATTAC
TTCACAGTGTCTGTAGAGATTTTATAAGATATGGTATACACAATGCATAACATAGGAA
CTGACGCTCAAAAATGCCAGTTACTTCCATCATGNGTCATAGGCTTTTATGTTTCATTAT
CCTGCTGCATCATCCCAAAGAA

Sequence 844

CCGCGGTGGCGGCCGAGGTACGCGGGGAGGTATGCCCGTGTGAGCCAGGAAAGGGCTGT
GTTTATGGGAAGCCAGTAACACTGTGGCCTACTATCTCTCCGNGGTGCCATCTACATTT
TTGGGACTCGGGAATTATGAGGTAGAGGTGGAGGCGGAGCCGGATGTCAGAGGTCTTGAA
NTAGTCACCATGGGGGAAAATGATCCGCCTGCTGTTGAAGCCCCCTTCTCATTCCGATCG
CTTTTGGCCTTGATGATTTGAAAATAAGTCCCTGTTGCACCAGATGCANATGCTGTTGCT
GCACAGATCCTGTCACTGCTGCCATTGAA

Sequence 845

CCGCGGTGGCGGCCGCCCGGGCAGGTAAGTCTAACCCTAAGGGATTCTACAGCTTTTCT
GCATGTTAAATAGTCTGTTTTAGCTTATTCTTATTACTTGTCTTGGTTTTTACTTTGA
AAGTTTGCTTAATAATCATGGGAATATTTTAGATTTTAAAATACAAAATATACAAGCTAA
ACTTGAGAGCAGTTTTAGTTGTAGAACTGTTTCTTGAAGTAATTGACTTAGCGTTTGC
TCTGCCTCTTTCTTTCTTACCTAGGTAGGTAGTGGGGACTCCTTCAATTATCTGAGCAA
TTCAAATCTCAGAATGTAGTGTGGGTAAATTGAGGGT

Sequence 846

CCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTACACCACA
CTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACG
ATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTG
GTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACC
TACCAGTTGGNGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGC
AGCTCCAGCACCCAGCACTTCTACCTGAATTTACCA

Sequence 847

TGGAGCTCNCCGCGGTGGCGGCCGNGGTACTCCAAGCAGTCCCAAAGTGGGAGTNCTTAA
AACACCATGGGCAGGTGAATGGCTGACCAGGTGGAGGTGCACAGTGCACCATGACAAGAG
CAGTGGAAAATGGGTGAATCTGAGATGCCTGGAGGCGAGGGGGAAAGAGCACATCACAGA
GGACAACGTCCANNNGGACACCCTTTTATA

Sequence 848

CCGCGGTGGCGGCTGTGGACTGAAGGGTGAAGTTCCTGTGGTCTCCATGGGAACAA
GTTGTTTCTGGAGTCTTCCAAGGAGAATTTCTCACAGTGGACCTGATCTCTGGGCTGATG
CTGGGTTCTTGGAGCTCATGATTTTGAAGTGGTAGACATTTCTGGGCTTCTGGGGAT
GTGCCTGCTGGACTGCTCCCCGTCTCCTCTGCTGGGGCAGGCCACGTGGAATTTCTTGT
GCTGCCTGGCTTGACATCTTA

Sequence 849

CCGCGGTGGCGGCCGAGGTACCTGAAGAATCTCTCTTCAAGTCTCTTCTCCTGGAACTT
GAGTGGGGCAGGAGGAAAAGCGGAGCTAGGTGTCATTTTAAATGAGGAACATACTTGTCTC
CTCCATTTATCTGGCCCTCCCTGATGGCACTCCAGAATTCGAATCCCACACGATTAACAA
CATAGTTTCCCTTTTCTGCTTGAAGGTCCATTCTCCTCTCAATTTCAAATCACCTGAGAT
ACAAAGCTGCATTTCCCACAAGAACCAGTTCCTCTCCTTTCTTCAAGTGTACTGTCC
TTCTCTCAGACCACCAAGCTTAAAACTCCAGAGGCTCAAACAGCAAAGATGGCAGCCCG
CTCCTCCCTCTGGGGAGTTCTGGCCAGGGAGTTTCAAATTTCTGTAGGCGGAAGAATA
CTAGCGGGGAGTGGCTGGAGACCCAGTTGGTAGGGNTCCACATTTGGGGGAAGTGAGCC

TABLE 1
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CAAGCTTTTN

Sequence 850

CCGGGCAGGTACATGAAAGTAAGATCACAAACCACAGGAACCACACAAAATTCAAGGCACC
AGAGGAGCCCAGACTTGGCTGGCAATGCCTGTTTTGGAGCTATTCCACATTTCTGGAAGT
.CAATGGGAATACCGGAATATGAAAACTATGAGGCCGGGCACAGTGGCTCACGCCTGTA
ATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCATGAGGTCAGGAGTTCGAGACTAGC
CTGGCCAACATAGTGAAACCCCATCTTTAATAAAAATACAAAAAATTAGCCGGGCGTGGT
GGGGGGTGCCTGTAATCCCAGCTACTCCGGCGGCTGAGGCAGGAGAATTGCTTGACCTC
GGC

Sequence 851

CCGGGCAGGTACTTTTTCTTTTTCTTTTTTTTTTTGAGTGGGGGCGGGGTTTCGCCA
TGTTGGCCAGGCTGGTCTTGAATCTCGGGTGATCTGCCCGCCTCGGCCTCCAGGGTGCT
GGGATTGCAGGCGTGAGCCACCACGCCCGGCCTCGATATATTCTTACAGTGGAATACTGC
TCAGAAATACTGATGAATCTTAAAAAACATGATGTTTAGCAAAAGAACCTTGGTATAAGG
TTCTTGGTATAAGGGATACATACTCTATGATTCCATTATATGAAATTCTAGAACAGGAAA
AACTATAGTGAAAAACAATCAGATTAGTGGTATCTGGGGTAGAAAGTAGGAGGAGATTGA
TT

Sequence 852

CNANAGGGGCTTTTTGGGGGGCAAACCGCGGNGGCGGCCGCNCNAGAACNAGNGGANCCCT
 NTTGGGGGGGGAAAAAACCCCAAGCCACCGANACCGNCGACCNCGAGGGGGGTNCCGG
 NACCCAGNGNNNGNCCCCTAAANAGAGGGGNNAAANNCGCGCNCNNGGCGNAANCANGNCAN
 AGCNGNNNCCNGNGANGAAANNGANCCGCNCACAATTTNTCTTTNTAGNCGAGCCGGG
 AGCAAAAGCCCNAGAAAAAGN

Sequence 853

AGGTACCCACAGCCCTTTCTTTTGAATTCCCTAGAAAGGGGTCTGTGCCACATACAGGAA
GTAGGGAGGGTGTCTTTGCAGCATATTTCTTCTTGGAGTTAACTGCGAACGTTGCACG
GCGACCTCTTGATCCATTCTGTGAAAGCCCCAAGCCTGTCATGCAATAAAGACGTCCAGT
TTCACCGCAGCAGGGAGGCCGCATGAAATATTCACCTTGAACAAAACCACTTAGCAGTTT
ACATCAATGCTTACCCTGTCGCATTGAAAGTGATGTGAACCCACACCCAAGAGCCCCCAA
ACCAGCACGTTGATACCAAGTTTCCCCAGCTGCATCCAAATCAATTCCTTCTT

Sequence 854

C N T T T G G G G G C T A A N C C G C G G G G G C A G C A N C N N C A C C G G C A G C G C G C N A T T C T T T G G G G G
 G G T G N A A A A C C C C C A G A C C C C G A G C N C N N C C A C T C G N C N C A C C A N T N T A G A G A C T G G G G
 C C G N T C C N C N N n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n
 n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n n
 T T T T T T T G G G G T T T N A G N G A G G G G A A N C G
 C N C G C A A A A A A A A A T C N C G G C C A N A G G G G G C C N G G G N G A A A N T G T T A N C C G N G C A C A A
 N N N C A C A C A A N A N A C G A G C C G G G A G C A A A A G A G G A A A A G C C N G G

Sequence 855

CCGGGCAGGTACGCGGGCTACACACAGTTTCGGATGCCAAGGGTGACACCCCATTCCTT
TCACAAGAGGCGGTTCTGTCAAAATCAGCACTCCACCCCCACCACACCTCTCAGTGAAT
GAAGTGCTGGTGGTCTCACTCCCCTGGTGACCTTAGCCGTGGGATGGGGTGGTTAACT
AAGGCTTCAAGCTGAGAATGGCCATCATGGCGGGAGGCTGTTTGCAAAGGCACCTTCTGT
CATCCTGGGGTTGGCTAAGTCAACTCCACCCCTTCCCAAAAAAAAAAAAAAAAAAGTACCT

Sequence 856

GCCAGGATTCAAACCAGGGANTTTGCTCCAGCACTCCGGCTCTTAACCTCAACCGTCTGC
CTCTCCACAAACACCAGGATCAACCACCAAGACCAAAAAAACAGTCTCACAAACCATCAA
ACATTGCACCTGGTGGCTCAGGACCTTAGCTTCGCTTTAAAGGTCCTCTGTTATGCTTTT
CTTTTGGCCCCAGTGTGTGAGTGGTCTTCGTGTTTGTGAGTGAGGGGTGAGGGGTGTGT
CTTTTCTTCTGTNCCCTTCCAAGAGGTGACATGTATCCTTGATACTGGAAGGGCCCTT

Sequence 857

AGGTACGCGGGCACTCCAGCCTAGGCAACAGAGCCAGATTCTTTTTTTTTTTTTTTAAAA
AGTCTTTTAAAAAATTCTTTTATTGTGCTGATTTTATTGTGTCATGAAGTGTAATATCGC
ATGTAGGTATGTGTCAAGTATACAGAGTGTCAAGGCATACGGTGTCAGTCATAAGCAGTT
CTGGCCTTTGGCCCTGCACTGTTTGTGGCTTTTTAGGTAGGAACCTTCTTAGAGTAAGA
CTGTCATGCTAAATTGTAGCAATCAAATGTGCCCCCATACAACCTATTTGAGGTTGAG
ATTATGTTGCTAGAGTGGAGGAGATTGGAGTGTCTAAATGCTAACAGTTTGTCTTGCCT

[illegible]

GGCAGGTACAACCTCCATCCCCTGGGCTCAAGCGATCCTCCATTTAGCTCCCCCTGTA
GCTGGGACTACAGACACACCACCGTGGCTGGCTAATTTTTGTATTTTTGTAGAGGCA
GGGTTTTGCCATGTTGCCCAGGCTGGTCTTGAACCTCTGAGCTCAAGTGATCTGCCTGCC
TCGGCCTCCCAAAGTGCTGGCATTACAGGCATGAGCCACCATGCCTGGCTGGGACATTAT
TCAAATTGAAGTGAGGACATGATGTTAAAAAGTTCTGGGCAAGTATTTACAAGTTAAAA
TACAGATGTAAGACTTGACTTGATCAAATGCCCAGCTCTGTAATTTACCTAAATTG

AGGTACAACATTGTGAAATTTTCCTATCATTTCTCTAAAACCTCTGCAGGCATGGAGGC
TGTCTGCTGAGATATAGCAGGGAACAATTTAACCCCTTTGTTTTGCACCCACAAGATGAGC
ATTACCAAATTCCTAACAGAGACATGCTGGGGCTGTGCTGTGCCTCCACCTGCCCTC
CACAGCCAGCTCCGCGTGTCTCAGTCTGTAACCTGATAGCATTCCACTTCCTGCCTGTACC
TCCCGGC

CNCGCGGCGCCGAGGNACACNNANAANAACCTTTTAAGGGGNGGAAAAACCCAANCCCCC
CGNCCNACCNCAGNGACNNGANGNATNTACNGGAAACAGGGCGCAGCCCNAGGAAGGACA
GNNGAAGNCCNNACNGNGCAAGNCNAAANNNNNAAGGAAANNAGNCCC CGCAGAGNNNC
CNCANGCTTTNNNTNTGCGGGGACCAGNCAGGGGNCGNCCCCGACANAANCAGGGCNCGC
CGNCGGNGGNAGAGNCACNNNGCAGGGGNGGNGAAGCNGCNCNCCANCCANGGACCNNGG
CCGCNCNAGAACNAGNGGANCCCCCGGGCNGCAGGAANNCGANANCAAGCNGANCGANAC
CGNCGACCNNGAGGGGGGGC

AGGTACTTTTTTTTTTTTTTTTTTTTGGNAGAGATGGGGCTTTACCATGTTGCCAG
GCTGATCTCCAGCTCCTGACCTCAAGTGATCCACTCGCCTTGGCCTCCCAAATTGCTGGG
ATTACAGGCGTGAGCCACCGCACCCGGCCAGTCTTCATATTTATAAATAAAGTCTTGTG
GGAACACAGTCACATTTATTCATTTACATTTTGTAAATAGCTGCCTTCAAGAGGTAGAGT
TGAAAGTCTTTAAGACAAAGATCAGGTGGCTTGCAAACCTAAAACGTCTGGTCTTTTAC
CTAAAAAGTTTGCCAAACCCAAAAACAAGAATATTCGATTGTAATCTTTACAAAGGTGT
TGGCTATATTTCAAGTGTGT

NCTATAGGGCNAATTGNAGCTCCCCGCGGTGGCGGCCGAGGACAAATTCAGTCCCAATAC
TCAATACGTATTATAGATGACTATGAGTGCAAACCTTAGGATGNGATTNTCTGAATAATN
GNTCTTTGTAGGATTTGGTTACATTATTTAAAAATGAAAAAGATCTAGTTTTAGTGTGAGC
TCAGTAATGNTAATNGGTTAAGTTCATTGCGAATCTTGAGTTTTAGATAAGTAGTTATTT
TTTTCAATATCACTTCTGTTTTAGTGATATTATATCAAGAAACAACGTATTCAAGAACC
ATGGCTGACAGTGCCAGATATACTTAGGGATAAACATCAAAATGCAATTATAGTTGCTAT
AACGTTAGATACTCGGAATCAAAATTTATTTGCANGCTGACTTGATAAACTAAATGAA

Sequence 864

TABLE 1
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TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAAGAGTCAGCAG
AAATGTGTGCTTTAAGCAGAGTCACAGGGGCTGGGGCTGAACTGAGTCATTTCTCAAAG
ATATCCCTGCCTGGGATGATGATGGCTCTAATTGAAGCTCTGGCATCATCTGGGGCTTTA
TGAGCCAAGGGAGATAAGAAGAGCCACAGCAAAAACCTTGGGTCTACAGTGCAGGCTGCA
ACCAAGGCAGCATTGCTAGAATATTTGTGATTATGTGTTCAACCTACAACCT

Sequence 865

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCATATTAT
ACCTTTTATTGTTGTTATAATTATTATGGGGTATTTCTAATTAATATGATGTTGAAACC
TGTTTGGCACCTTCTGGAAGCTACCAAAAAAATGACACTCCATTGAAAGTGCTTAAAAGCT
GTTCTCATAAGAATTCTACTGGCCTATTGTAAGAAAAAGAAAAAAGAAAAAGAAG
AAAGACACAAAGAAAATAATCTAAACACCAAAAACTAAACACAATTCCAATCCTTTTCT
GTACCT

Sequence 866

ACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACGGAATCTGGACAGTG
CTGCACAGATTGATACATTAGCCTTTGCTTTTCTCTTCCGGATAACCTTGTAACATAT
TGAAACCTTTAAGGATGCCAAGAATGCATTATCCACAAAAAACAGCAGACCAACATA
TAGAGTGTTTAAATAGCATTCTGGGCAAATCAAACCTTGTGGTTCTAGGACTCACA
TCTGTTTCAGTTTTCTCAGTTGTATATTGACAGTGTTCTTATTGCAAAACATATA
CCCGATTAGCAGTGTGAGCGTATTTTTCTTCTCATCCTGGAGCGTATTCAAGATCTTC
CCAATACAAGAAAATTAATAAAAAATTTATATATAGGCAGCAGCAAAAGAGCCATGTTCA
AAATAAGTCATTATGGGCTCAAATAGAAAGAAGACTTTTAAGTT

Sequence 867

CCGCGGTGGCGGCCGAGGTACATAACATGATATCAAGGAAATGCTTGAAACAACTTTCA
CAATAAAGTCAGAAAAAACTGTAAAAATTGTCTGCAATCCAAGAAAAGCACGTGCCCT
GTGTGTAGGGGGAAAGAGGGAAAGCACTTGCAAGTGACTTTATGTGGTCTTTCCCAAG
TATTGCTACGTTTTGACCTTTGGCCCACTGAACAGGTGAAATGCCCTTCACATAAGTTT
CAATCCCCAAGAACTAGCTGGAATGCAGGGGACTGTAGACACACTCCTGGACCAATGG
CATCGACTCTCAGAATCCAAAATGGGCCCTGCCCTCATTCTGAGCTTACGGCCCCAAGCA
TATTCTAAACAAAGCTTTTTTAA

Sequence 868

CTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACAGGATATCAC
CTGAATTATTAATGAATGCCAGGAAGTAATTTCTTCTCATTCTTCTAAACTACTGCC
TTTCAAAGNGCACACACCCGCGTNCACATACACTGCATTGCTTCCAGTATAAATTA
CATGCATGAGCACCTTTCTGGCTTTAAGCCAATATAATGGGCTGCAAAATGAAGACACC
ANAGTGATGCATACAAATCTCACTGTATTAAGATGCAGGTTTTCTAATTGTACCT

Sequence 869

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTGGCGACGCGCGGGACAAAG
GGAAGCGAAGCCGGAGCTGCGGGCGCTTTTCTGCCGCGGTGTCTCAGATTATTCTTA
AGGAACTGAGAACTTAATCTTCCAAAATGTCAAAAAGACCATCTTATGCCCCACCTNCCA
CCCCAGCTCCTGCANCAAAATGCCAGCACACCCANGGTTTGTGGGATACAATCCATACA
GTCATNTNGCCTACAACAACTACAGGCTGGGAGGGAACCCGGGCACCAACAGCCGGGTCA
CGGCATCCTCTGGTATCACGATTCCAAAACCCCCAAAGCCACCAGATAAGCCGCTGATGC
CCTACATGAGGTACCT

Sequence 870

GACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGG
ACCCGGAAGTTTAAATCCGCTCCCTCCACGAAAGAGTTGTAGTGAGTGAAAATAAATAT
TAAACACACGGAATGTATTTTCTGGCTGCAGCACCNGCCATCTTGCTCGGNAGGAC
TCATTTTNAAAAACAGCAGCTTCTGAAGCCCCANAACGCATTCCTGTGCTACGG

Sequence 871

CCGGGCACGGTACAGAGCCCAAGACAAAAGATAGGCCTGTGAGGATAACATCTGGTATAT
CTGACCCTTCCCAGCATGGCCAGGAGGCACAGCCAGGCCAGGGAGGGCATACTGGGTTTG

TABLE 1
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GCTTTGCCCTGCAGCTGTTGGCCTAGGTGCTGCGGTCATACATATGCCCTNAGGCCTTTC
CATGGCTACCTACCTAGAACCCAGATTCTTTTTTTTTTTTGGAGACGGAGTCTCGCTCTG
TCCCCANGCTGGAGTGCAGNGGCGCCATNTNAGCTNACTTGCAAGCTNCGNCTTCCGGG
T

Sequence 872

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATTCCGGGTCATCCGCA
GAAATTCCTCATAGATGGTAACTCTGTCTACTCTCCGAGCCAGTGGCGAGAAGTTACACA
GGGAGTCCACCCCGGTGTGGTGCCTGCTTGNGGACAGACCTGAATGTTGAAACTTGACAG
TCAGAAAAATAACTCTTGATGCTGCTGTTTCGGAAGAGTTGGTTGAGCGCATCCTCAATA
TTCCTTTTGTCTCTGGNAATTGGTGGTGCCTGGCTGGGCTTTGTCTGGGAATATGGT
AGGTTGGTGATGGTAGAAATTCAGGTACGAAGTGCTGGGTGCTGGAGCTGCTTGTGGTT
GATGAAGTATGACTCC

Sequence 873

ACTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCCGCCCGGGCAGGTACAATGCTCACT
GGGAACCAAAGTCAGGCATGGGGCTGGGCTTTAAGGAGCACAAACAAAAGGAGGGACTA
GAAAACCTCAGAAAGGTATTGGTGGGGGATGTTGCGGGGGGACAGGGGACAGCGAGGATG
TGGGATCCCGAGATCGTCCAAATCCCTATGTGTAGACATATGTGTATAAAGGCCTTTAAG
AGACTCAGGCTGATGGGGTATCTGTAATAAATCAAACATAATATAACAGCACGTCAAGTG
ATAAGGGGACTCTGGAAAAACAAGCAGCAAAAGGAGCAGTATCAAACCTCCACAGAAATTC
ACAAACATCAAGACACCAAGAAAGCTGCATTNATTTAAATCAAGGTGACAGGCTGGGCTC
TGTAGCTCCAGCCTGTAATCCTAGCACTTTGGGAGGC

Sequence 874

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCAGGTACTTTTTTTT
TTTTTTTTTTTTTTTTTTGGGATGGAGTCTCGCTCTGTACCCAGGCTGGAGTGCAATG
GCACAATCTTGGCTCACTGTAACCTACACCTCCCGGGTTAAGAGATTCTTCTGCCTCAN
CCTNCTGAGAAGCTGGGACTACCAGGGGATCCCGCCCCACCCCGGGTAGGTTTTTTGTAT
TTTTTAGNNAGAAGACAGGGTTTTCCNCCCATTATGGGCCAGGGCTTAGGTCTCGGAA
CCTCCTGGACCCTTGNGGATCCTGCCCACCCTTGGGCTNCCAAAATGCTGGGGATTAT
AAGNGGGGAGCCACTGTGCCCGGGCCAACAATAAATTTTTTTAAGGGTTAGTCAAACCT
AACAACAAAANTTTAAAGGTCAATCAGTAGTTCTAACTTTTTTTTTTT

Sequence 875

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAGACTTTGTAA
ATGTGATTACAGGGCCCCAGCACCCCTGTGTCTGCAGAGTGCCTTCAAACTCAGCTGTT
CCGGCCGGTGCCAACCTGTGAACCTCCCACCATATCCCAAGATCTGCTATTCCCCAAACC
ACTTCCCAGTTTCTTTTCAAGTAATCTTTCTGAAGGAGCCAGGACAATAGGGCCTGTTGTT
TAGTGAATTTCTTTATTATTTTCAAGCCTTTAAATGTAATTTCCATCTCTTGCAATGAAT
TTGTTTCCCTTTTTTTGCTTCATTTTGTAAATTTTCAAGGTATTTAGCTCCCTTTTCA
TATTATTTTAAATTTTTTAATTACCTGTTGTAGGGGTGTTCTCCAGAAGCAAAGAGCA
AAATTTTACTGTTGTGATGTACCT

Sequence 876

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCAGGACGCGGGATTGA
TCAAAAGCTTTGTAACCACAGGAAAAATAAACTCTTCCATCCCTTAAAGAATAGAATAG
TTTGTCCCTCTCATGGGAATTGGGCTGTATGTATATTGTTCTTCCCTCCTTAGAATTTAGA
GATACAAGAGTTCTACTTAGAACTTTTCATGGACACAATTTCCACAACCTTTCAGATGCT
GATGTAGAGCTATTGGGAAAGAACTTCCAAACTCAGGAAGTTTGCAGAGAGCAGACAGCT
AGAGATAACTCGGGA

Sequence 877

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCAGGTACAAGTCTTA
AACTGCTCTGCTCTTTAAACCAAATACATACACACATACACAGATATAGTTAGATACAGA
TGTGTGTGCATATAAAAAATGACACTCCTTAGTAAAAATTCCTCTAGACCTGGGGTTC
ACACATCCCTCCTCCTGATCCGTGCTGGTGCCTACTCAGGCACTACTTTGCAGATTTCTC

TABLE 1
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TTCTATGAGCTAAGGTTTTCTGAGCTAAGGTCAAGCGGTGACTTAGCAAGTTGAACGTG
TAATGAACCAAACCTGTTTTCCATGGAACCAATAATAATTAATCTAGAGTGAGCCATTT
GGCCTCCAGAAACAAAGAGATTTCCATCACAGAGTGTTGGTGAGGGGTCATGAGTAAGGC
GGGGGGGCAGTGAGAGCAAGCTGTTTTATTGTGAGAGTAGCAGGCAGGCTGAATGAGAAG
GGGTAGCTGTT

Sequence 878

CTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGGTACCATTCC
GGGTCATCCGCAGAAATTCCTCATAGATGGCAACTCTGTCTACTCTCCGAGCCAGTGGCG
AGAAGTTACACAGGGAGTCCACCCCGGTGTGGGTGCCTGTTGGGGACAGACCTGAATGTT
GAAACTTGACAGTCAGAAAAATAACTCTTGATGCTGCTGTTTCGGAAGAGTTGGTTGAGC
GCATCCTCAATATTCCTTTTGTCTCTGGTAATTGGTGGTGCCTGGCTGGGCTTTGTCC
TGGGAATATGGTAGGTTGGTGATGGTGAAATTCAGGTAGGAAGTGCCTGGGTGCCCCGCG
TACCTCGGCCGCTCTAGAAGTAGTG

Sequence 879

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTTTTGGGGAATAACAGGGGAGAGCAAATTTCTAAAACTTGGGGTTTTATAGTAATTT
CTGATTTTCATGTTTAGAAAAAGAAATCACATTAATAATATGCTTTTTTAAATTTTGAG
ATAGGATACACTATAATATTATTGTAGTCCAGAAATCTGTATACTATAATTCCTAGGGA
AAAAGAGAAAATTATTAGTGTCAAATACCTATAATCCCACAGTTACCATATACATTTT
TAAAAATTGTTTAAATACACAAACAATGATGATGCTGTCTACTAGAAATGACAGGAGCN
AGAGCTTTTACCTTTCTTTCAAATGCCTTAACCCCTTTCATTATTNCCAAGGTTCAAA
ATTTAAANATTCTTTTTTTT

Sequence 880

CNCTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATGGCGCAATCT
CAGCTCACTGCAACCTCCACCTCCTGGGTTCAAGCAATTCTCCTGCCTCAGCCTCCTGAG
TAGCTGGGATTGCAGGCATGTGCCACCATGCTCGGCTAATTTTTTGTATTTTATAGAA
ACGGGGTTTTCGCCATGTTGGCCAGCTGGTCTCCAACCTCCTAACCTCAGGTGATCCACCCG
CCTCGGCCTCCCAAAATGCATCTCTGGTCTTTAAATGCCCTTTGCTGTATATTCTATAAC
ATCAAGTCTCAGATCTGGTTTGACCTCAGTTGGCCTCTTAATAGTTTTCCCCTATGAACA
TTCTGGTCTCCAGTAAGCCTGTAAGCAGCTGAGACTGGGAAACCATCTCTTATATCCA
CATCGTCCCATG

Sequence 881

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCACACTGGTAAAGAGTGGCAAGGTAGC
CTTTGTAACCAGATATATCTGATCTCAAAATCAATTTTCTTAATTTAACCCACGTCAGTC
AGTCAAATGCTAAGGCTCTTCAAGCTACACTTGGTTCCCTCCACCTCTAAAAGGTGAGAA
CTCAAGAGAGCTGGGTTCTTTGGGACCTTATCATATTTTCCCCTCCCTAGGCCTTGATT
TCCCATTGGAATAAATCAGTGAGGGCTTTCTAGTTAAAAATGCCAGTTGAAGCCAGG
CTTGGTGGCATATACATGTAGTTCCAGTTACTCAGGAGGCTGAAGTGGGGAGGATCGCTT
GAGCCCAGGAGTCCAGTCCAGGCAACATTGCAAGATCTCATCTCTAAAACTAAAAAATG
GACCAG

Sequence 882

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTAATGAATTGAC
AAATGGAAGAAAATTTAAGGAGAGTAGCCTAGAGAACTCATTCTAGAACTAAATAACTT
AAGTCAAAAATTATTTCTATATTGCCTCAAGCCCTGCAGATAGCTTTGCTATGTTTGTG
TATTTGCACATTGCACTCCAGCCTGGGCGACAGAGACTCTGTCTCAAAAAATAAATGGA
ACAATCACAAACAGAAACATTCCCTTATTCACTGAACATTTCAAACCTGAAAAATGTGTAA
TGAGAAATGACAAATTTTAAAAGTTTAATTACTAAAGAAGACAAAAAATGTCTATTATG
AATAGACCAATTCTCAATTGGTAGAGGAACCTTGAAGTGGAAAGGAACCCTAAAGAAATC
TCCTGTCTACCCCTGTTATTACAGATTAGAACCCGAAAGTCCAG

Sequence 883

CCGCGGTGGCGGCCGCCGGGCAGGTACTATAATTATAATGATTTTCAAGATAGAACATGCA

TABLE 1
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ATTAGCCTTTTGAAATCCAACCTTCTGTGCAAAATTTTAGTATCAGAAAATACGAGATTG
CAGGGGGAAACATCAGTAACTACCATTAAATGTCAATGCCAGTTTTGACTTTTGTAGC
CTGACACTCCCAACAGTTGTAGAATCCGATAGATGACTGATGGCAAAAGATTGTGAACA
TGTGGAAGAAAATCAGTGGGATTGGTGCTGATGAATAGGTTGCCTTCAGAGTATTATTG
ACAGACAGCTTGTGGAACATAATCTTTATTTTGTATGTTGTGGGAATTAACACATCAATG
GTGGTTATGGGAACTACCAATGGGTTCTACAAT

Sequence 884

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAATTCTAAATTATAAG
AAAATATACATTTGCACTTATTAATATAGAAATTCATTTTGTGTATTTAACATAGCTT
TTAACTATTTTACATTAGCTACTTTCATTATGGTTTCTTGAACCTCTGAAAAAATTAG
AAATGTATTAACCTTATCAGTAACATAAAAACTTATTTGTTTACCTAACGAATACTGC
GTTTGTAAAAATAAATTTAATATAGAATATATTTTAAATTAAATATTTGAATATAAAAT
AGCTCTAAGAAAGAAGCAAATATCACTGAACATATTTCTTATTATTTCTGGCTTTGAAT
TAATACGTAACCTAAATTGGCTTAAATGATCCAGAATATTGGAGGAATATGATACTTTCA
CATAATATACTATGAACCTGTTTATATAACTCTGGATTGGCTACCTAACCTTCTGNTTTA
ATG

Sequence 885

CTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAAGTCACACCCAG
CCAGTCAATAACTGAGAAATCAAAATAAAATAAATTTCAAAGAATTACATAAATACAG
GGCCTTTTGAGATTTTGGCAATTGTAACAAAAACGAATGGTTTTACAATTCAGTGTA
ATTCTACGAATATTTATTTGGCACCCATGTTAGGCACTGAGGCTACACAGCAGTGAAATA
GGCCTAGTTGTTCTCAACTAGAGAACATAGTTGGTTAATGTAGCTGCACTGAATTGTAAG
CTGTTTAGAAGATAATATACCCTGAGGCTTTTTAAAGTATACTATTACTATAAGGAAGTA
AAATTATTTTATACTTATAAATTTGTTTTGGATTATTCAACTGAATTTGGAGTGTTGAG
AATTTTATGGGCGGTTGGGGACAAGGAAGAGGTATAATGCTATTTTTTTTCTTTTCTTT
TTT

Sequence 886

CTACTATAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCGAGGTACTTTTTTTTT
TTTTTTTTTTTTTAAATTTCCACCGGTGCCGAGGCCTCAGTGGAGCCTGGCTGGCGGCT
TGTTAGAGCCTGCAGCCTACCTGTCCTGCATAGGAATGAAGCCGGGAGGAGTTACATGAT
ATGCCCTCGTTGCAGGCCGGGGACACAGCTACCGCATTGAGAGACCAGGAAACAGAGCAA
AAGCTGTTCTCANAGTGCGGCTGAGCGAGGAGCTACAGGGGAATGGNNGGGGGCAAGCTG
CATGGAAGATTGTCCCATTAACCTGGCTTTTTACCAGGGTGGTCTNTCCCTAACCCCTA
AGAATCACACCCTGCATCCAAACGGCAGCAACCCCAAAA

Sequence 887

CNCTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTT
TTTTTTTTTTTTTAAAGCTGGGATATCTTACAGAGGAAGGAAAAATTAACCTTTTTTACTTT
CTTTCTCACTTTTTAAATCAGCCAAAGTCAAAGCCCGTTTGCCAACCTGCATGTCCATGC
CTGTAAGCCCTTCTNTTGGCCAAGGAAGAAAGGAAGAAAGAAAAAAGAAACCCAGGGGCC
TGTATCCCTGATTAAACACAGCACAGCACTCCAGGCAGACATGCCCGNGGCGGCTCCT
TTGCACCATTGACCTCAGGCCAGACACCTCAGCGCCAACAATGGGACCTCGGCCTTCGGG
CTAGGTTTGCCCCAGGCTGGGCAGGAAACCAGCTCGGCCGCTNTAGAACTAGGTG

Sequence 888

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGAGAGACATTGTGGCTAGCCAACCACA
TGGTCAGCCTCAAAGTTGAGAGGCTCAGTAACCCTCCTATCCCTAGAGAATTCAAAGTG
TGGATGTAATTTAACCTAGGAAAGCCATTGGTGACTATCTGTGATCCTCTGGAAAGTATG
CTATGTTGGGTATATCTTTGCATCCAAAGCCAGAGGGGAACCACAATGGCCTAGTAAAA
CCGGTGGGTCTCAAATGCCCACTTAAGCCTCTGGCCTNTTGAANTTTGACCCATAGTG
GGCCGTTGAGCTTGATTAGAGCCGGGGAAGAAAGAAATATTGNCATTTTTTTTNTTGA
AAAAAAATTT

Sequence 889

TABLE 1

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CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGGATCTATGCTGC
TATGGGTGGAGAATCGACATCCTTTGAAACTGGCCACAGGCAGAGCTAAGAGGATGACTA
AAAGGTCCCTTGGGTGGGTGCTAATGAGCAGGGGCCAGGAAAACCTCTGTCTTCCCGGA
GAGCCCTCTTGCATGAGTTTCGGCTTTGCCAAGATTCCAGGGACTTGAGGACAGCTATTG
AGTTATGGTTACGTGACTGCCACATTGGGGCTTGGAGGCATCTGGCAGATGGTTGGGAAT
GGGCTGGCACCACACTAATTAGGCCACGATGATCCAGTTTGACTCAGGGAAACCCAGAAG
TCATAGTNCCTTTGCAGAATGACACAAGGATGTCAACATGCTTTGNTTGTGTACCTCGG
CCCGCTCTAGAACTAAGTGGGATCC

Sequence 890

CCGCGGTGGCGGCCGAGGTGCATATATATATACACACACATATATATATTTATGTATC
TTTTAAACATATAATTACTCTCTTTAATTCATTTGGACTTTTCATCTAAACTTGCTCTGT
TTGCACAGGTCTGTTAGGGTAAGATATGTTCTACCTTGAGAAATGTTGTGAATATCTAG
CGAAACACCAAAACATCCTCAGCTGACTAATGTGGTATCAGACTTTCTGGTTGCAAGGTAG
GGGTGAATAAGGCAGGATGGGGTGCGGGGGTGGTGCTGGAAGAAGACATGGCATCAGGTT
GGGTTTGCAGGATACTGAAATTGTCTAGGGGCCTTGGCTGTGCAAAGAGCCTTCCGTC

Sequence 891

ACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACGCGGGATTCT
CAGATAGTTATGCGCAGCTCCAGGCACCAGATTCTGTGCTGGGTGCAGGCAGGACCTGGA
GGGCGTCTCAAGTGTTGATCTGCAGGGACTGTCTTGATCTTCCAGCAGTGTCATTGTG
GGCACGTGACCTGAGCTTTCTGAGCCTATTTCCGCATCTGTAAAGTGCTATCCACTTCCA
CCTCCTGGGCTGTCTGTCAGATGTAGGAAGGAATTGCACTCACACACTCAGCATGAGACA
GGCGCTCAGTAAAAGCCCGTCCAGGGGATATGAGATCAGTGAGGGATAGGAAAGCAAGGG
TGGGTAGAAACAGCAAAACCTTTCCCA

Sequence 892

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGNCAGGTACCAAGCATTG
GACACACAAAAATACAGGCAGCTTCTTCCCTCAAGGAGGTCACAGGTGGGTGTGCCATA
GCAAAGCTGGGAGGAAGTTGTATGAAGGAGCCTGAAGACAATGGGGAGCTAGGGGAAAGT
TCTGAGTAGAAAGGAACATGTGGACAAAGGTTTGAAATGATGAAGACTGATTAGGAAGTT
CATATTATGAAGCATAATTCAAGCTTTCTCTACGATGTTCAAATCCCATCTCTCCTACTT
ACTAGANAGGTGACATTGGGCCAAGTTACTTATCTCCTCTGCTCCTGTTTATTTGTGTT
AAAAACAGGGACCTCTCTCACAGTGTGATTNTGAAGACTGGACAAGAAAATGGGAGGTTT
TG

Sequence 893

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACAGTTTGGAAGTTT
AGGCAAAAGTCATTTCTTCCCTATATTTGTCATGCTTATCTCCTGTCTCTTTCTGTTT
ACAGATTAGCAATAAACTCCTTAAACCCAAAAGGTTTGGGCTTCTGTTCCCTTCACTTG
CAGTCAGACATGGAGTTAGTGGTAGAAGAAACAGAAGGGGTAACTGCATGGTGACAGCT
ACTGAGGGGATGGATAGGAAAGCAGGCTGAGTCCCTGGGGCCAGTGGTTACCAAAGCCAA
GGAGAGGGCAAGGGGAGCCAGTGGGCCTGG

Sequence 894

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATCACCTGCTGA
GGGACATCCAGGACAAGGTCACCACTCTACAAAGGCAGTCACTACACGACACATTCC
GCTTCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGT
TCTCCTCCAATTTGGACCCACGCTGGTGAGCAAGTCTTTCTAGATAAGACCCTGAATG
CCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGG
AGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTNTACCTGAATTTCA
CCATCACCAACCTACCATATTCCCAGGACAAAGCCAGCCAGGGCACCACCAATTACCAG
AGGAACAAAAGGAATATTGAGGGATGCGCTCAACCAACTNTT

Sequence 895

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGGAGTAGTCTAAACAA

TABLE 1
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GTGACTTTACTACTTATTCTTCTGCATGTCCTTACCAGCTTCTTACCTTCTTCAGGTTGA
GCATGAGATCAGCTTCACAGGGGATGGGGTCCTTAAGGGTTTTTCCATACTAGTTTCA
GCCTTAACAATGAGTTTTCAACCCTTAACATGAAAAATAAATAGTGCGAAAGAGGGGAG
GATGGTAGAAATGCTTTAAATTACCTTTTGTAATTTTACTTTGTTTATGTTTTAATTG
TGCTTGCTTATCAGGGAAGTCTACAAACAAAGAACTCCACGGCTTCTCAAGTCTTCC
AAGGGAACAGGGTCCCCCTGGTTCTTAAATCAATGGGAAGTAGGTTTTTGGTAACCAT
CTACTGGTCAANGGNAACCATTTCTACCTGGCGGTTTATTACACCTTTGCTAGGCTTCT
TTTTCTTTTTCATTTTAAAAATAATTTT

Sequence 896

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGTTCATATCCCAGTTCTA
GAATCAGTTCATTTTCTAAGGAGTCCTGGTTCTTTTATTGGAAACCAAAATCTGGGCAC
CAGGTGTGCTCCCATCTAGTCGTTTTCTGACCACATAACTGCTAACAAAGATGCTTCAC
TCTGGCTACACTGATGTGAACCTTTGAACCTTAGCAGAAGAGCTCAGCTCTAGAGAACAAT
GAGCTCCTACATTACCTTTTTCTCAAAGAATAAGTAAGTCTAAGCAGAAAAAAATAT
GCAAAGAATTTTCAGTATGAATGAAATAAGACAAACCATCAGGCTTGCTGTATTGTAAC
CAACACAATATAGTTATAACAGATCTGTAGAAGGGATCCTTAGAATAAGAGAGGCATTTG
TCGGGGGGTCATCAGGGAGAATACTGGATAGNATCTT

Sequence 897

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TTTTTTCTTCATGGCTACATCTGAACAGCTACTGAGGGATATATATGCCAACTTTGGGA
GTTGCACAGCTTTTTTGAGGCCATTTNTAANATGACTAGGGACTGTAATTTCTNTTAAT
TTGGAATAGCCACAAGTTGTTGTAGCCAAGTTTGNNGNGNTTTTAATACAATCTTAA
AATTTTAGTAGGCTTCTCATCTGTANATAGATTTGAAGGGGNGGGGTTGCCCTCCACAC
CTGTGGGGTGTTTNTCGTAAGGNGGGACCAGAGACTTAGGA

Sequence 898

CCGCGGNGGCGGCCNAGGTACACCAAATGGATTACAAGCAGCATCCAGCAGAAGACAGAC
CCCCAACCCCTGCCACCAGGGCTCACACTCTACAAACCCTGAGGGCCTAGAAATCTGT
AAATGCATCGNCAAGCACTGGGGCTGATTTGCAGTAATTCTCTAAGCAAGGCAAAACATGA
TCTAGCTTTGAAGGCAGCATGAAGGCAGCGGTTGGNGAGAACAATCTNTCCTTAAGAGA
AGAAGAAACCTGGGGCGGANGGAGTTTTCCCCGG

Sequence 899

AGCTCCCCGCGGTGGCGGCCGAGGTACATGTTANGGTCTTGAGTTAATTGCTCTGTGGCT
GTGGATTTTTATTTGATGTTCTGATCTCTTCCCTTCCAGTTTGATAAATTAGTGTAAGAAAG
TGGAAGAAAAACATGCCGGCGCAGCCTGTGCGCTTTGTCAGGTTAACAGAATGGAGTCCT
GCTCTGGCATCAGTCAGTGCTGTTGTCGAACCCTCTGTGGCTCCTTCTCCCTCCCTGG
GGCCCAGAGCTGCAGACGCTAGAGGGGTA

Sequence 900

GCTNCACCGCGGTGGCGGCCGCGGGCAGGTACCCTAAATGTTAACTGAGGGATGAGT
GAAACAATATCAGGATTAATAAATAAACACATTCTTGAATTCCATCACTTAATAGAAGTG
GCCATTTGAATGCTGGCAGGTNGGAAGAAAAGAGGAGGACAAAGAACCCCAAAAGTTGG
CATCATAACTACTGCCACAAG

Sequence 901

ATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TGATTTTTAGTAGAGATGGGGTTTACCCTGTTAGCCAGGATGGTCTCGATCTCCTGAC
CTTGATCTGCCTGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCG
CCTGGCCTTTCCAGGGTATTCTTTAACGTGGTCTTATTTGCCTTTTTGAATTTAAGAAA
ATCTATCAGCATCATATACCACCACTGGAATATAAATTTGAAAGAGAGTCCTGCAGATTA
TATACATGAATCTACTTAGGCCTAATAACCAAGCAGTCCTCAGTGGCAGATCAATGAAAA
GTGAAACTAAAGGCAAGTGAAGGGTAGGAGAGATTGGCCAGT

Sequence 902

GGCAGGTACCCACCTCCTCGGTACCCACAGAGCCACCAAGATTCCATGTCCCAGAGCT

TABLE 1
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TCCCATAGCAGACCTGAAAAGTCCATGACCTGAGCTTTGGCCATGGTAGTGGAGTGGAAAC
AGGAAATAGTCCAGCAGAGGAGTGTGGGGGAAGGGGGCAGGAGAGGCACAAGAATAAGGG
AGACCTGGACTCTGCCTTTTGGGAAAAGGAACCAAGCTCATAGCAATTTGGCTGATNAC
ACAATCAGATTTTTCCAGGTAAAGCTTCCTTTCTG

Sequence 903

CCGCGGTGGCGGCGAGGTACCATCTACTGAATGCCAGTTTTGATCTATTTCTAAATGG
AGCAAACCAATTCCATCTCCTAGAGCTGGAGACTGTATCCAGGCAGTGTGTGGACAGAAC
GGACAATCTTTCTGCCAAGGGCCTATTTGAGTGGAGCACCCACACGGGTTAGACGGG
TCGGCACGGGGCTGGTGGGTGAGGAAGTCAAGGGTCAAGTGCAGACCTCATT
GGGGAACGCTCTCAGCACAATGCTCTTACAACAGGGTCACTCCAAAATGGAGTTCA
AGGAAAAAGGCTAATGAGAAATAAAATCTGAAAAATAACTTAAAAAGTTTTGCT

Sequence 904

CCGGGCAGGTACGCGGGGGCCCTTTGGATACCTGCACTCCCCATCACCGCACTCCCCATC
GTGGCACTTCCCTTGTTCAGTTTTATGGAGTGTGCGTCTGGCTCCCCAACTAGACTTGA
ACCGCTTGGGTGCATAACTCGGGACTTGACCATTTGCGTCTCCCTACGGCCAGCTCAGCC
TCCGCACACAGGGACCTGCAGAGAGTGGATGTAGCCACTGCCCCAGCGTCCCTGGGCTCT
GAAGAGAAGCCATTGCCCTTCAAGAGCCACCCTCATTTCTGGGCACTGGTTTGAAAAA
ACGAAGAAAAAGAGACACCCAGCTCACCTCCA

Sequence 905

CTCCACCGCGGTGGCGGCCGCGCCGGGCAGGTACGCNNGGGCAACTCATTCATGATATTGGG
AGAAAAGCAAAGCAAAAAGTCAACAAAATCTCAAACCTTTCTGCAGCAGCAGATGGCA
AACAGTGATCAGAGGAGAAGGACCCTTCCAGCATTAGAAGATTTCAAAGGCTGTTCCAG
TAGGGGCTGTGGGCTTCTGGGAGCCAGATGCCCCCTGATGGTATATTGAGTTTGTGAG
GTGGAGGCCAGGTGGCAAGANACTGCNNGCCAATGTCAATGAAAAGCCTGGGAGGAAAAA
GAGATTTCTGGGA

Sequence 906

AGGTACTTTGCTAACCAGCATTTTGGCTGTGTTATTGGCAGTTTTCAAATTTGAATCTC
TTGCCATCTTTTTGAGAGTGCATAGACATTTAATTTAAGAAATTTATAGAATTGGACTT
TTTTGTCTCTATACATTTGTAGGTGAGTGCACATTTGTTTCTGTTTCATCTTTCTTA
AGAGCAAAAATGTAAAGTTTTGTATGTAGAGGATAATTGTATGATGATAAACTAATT
AGGTATTACAGTTTTCTAACGACAGAAATTTGAATAATTAGGTAAGTTGGTTCATATTA
AAATATTTGATACATAGGCCGGGCATGGTGACTCATGCCTGTAATCCCAGCACTTTGAGA
GGC

Sequence 907

GGCAGGTACCACACCCATCTTACCCTCTTCCCTCTAGGTTCTGACATTCAGCTATCTTGG
TGGGAGGCTGGGGAGCACTATTGGGGATGAGGGTAAGGTGGAGTTTTATAAAGCTCTCCA
GGTGACTCAGAGACCACCTCATTCCACCTGGTCACAAATCCCTGAATGGGAAACAGGTA
CTTTTTTTTTTTTTTTTTTTTTTGCAGAAATTTGTAATAATTTATTGTATAAGTATTGCA
GCTTTTCANAATGTCATCATTGCCACTAATGATTACTGATACACAACAAGCAGTTTCTTC
AGGCCTGTGGATTGGCATC

Sequence 908

AGGTACTTCCCTGAGCAGTCAAGTGGATGCCAGACCAATGGCCAGTGCTAATATCAAT
GCAATGATCCCAATGACGATGATTGGAAGAAAACCTCAATGGCAGCAGTGACAGGATCTGT
GCAGCAACAGCATCTGCATCTGGTGCAACAGGACTTATTTCAAATCATCAAGGCCAAAA
AGCGATCGGAATGAGAAGGGGGCTTCAACAGCAGGCGGATCATTTTCCCCATGGTGACT
ATTTCAGGACCTCTGACATCCGGCTCCGCCTCCACCTCTACCTCATAATTTCCCGAGTCCC
AAAAATGTAGATGGCACCACGGAAGAGATAGTAGGCCACAGTGTTACTGGCTTCCCATA

Sequence 909

AGGTACAGCAAATTAACCCCAATAACAGGAGGAGGAAAAACCTAATTAAATATAAAAATT
TCAAGGATATGTTAAACAAACAAACAATTACAAGAACTCCTGTCAAGTTAAACAGAGAG
AGAGAGAGACAGGGAGAACCCTAACAGGAAAGAGAAAAAGATATACAAGCTATCCCGCA

TABLE 1
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GAAATTA AAAAGAGACTAAGAATATTACAAACAACTTTATTTTCAATTTAGATGAAATGGAC
AAATTTATTTTAAAACACAATTCGCCAAAATTGACAGAAGTGGAAGTAGAAAATCTATTT
CTGTATTTATTAAAGATACTGAATCTATAATTA AAAATATCTTCACACAGAAAATTACAG
TTTCAAATG

Sequence 910

AGGTACGATCTGAAGAAATGAAAGGCATTGAACTTTGGTGGGTAAATTGGGTCTTTTCCA
GCAAAGGTATAAATCCTTAAAAGCCAAGATCATATTGTTTGATTTCTCTGGGCTCTCTGC
TGGATACAGTGCCAAGTCCATAACTGTATACCCCATGGACACTCTATGTTAAATGGAGAT
TAATGTGTAAGAGGTGTTTTTTTTTTGTTTTGTTTTGTTTTTAATTTGAAAAAGAAGC
TTAAAGACCACAATGGGTGTGGCATTGGCTCGACCCACAGATCTGCTTAGTCTCAGACAG
GCACTTTGAACCAGTCTTTTAAAATTGCGTCACAACAAC

Sequence 911

AGGTACAGATCACTATGGCTTGTCTTTTCTCCTAACTAATGTAAAATTCCTAATAATTCA
TAACCTGTATGAGGACAACAGTTGTGTGAATCTACCCTGGTCTTCTGATNATTTTTAAT
TTTTNATTTTTTTTTTTTTGGGGACAGAGTCGTGCTGTTATCGCCCGGGCTGGAGTGCA
GTGGCATGATCTCGGCTCACTGCAACCTCCACCTCCAGGTTCCAGCAACTCTCCTGCCT
CAGCTTCCCGAGTAGCTGGAATTACTGGTGCCCACTACCACACCCGGCTAATTTTTTGTA
TTTTAGTAGAGATGGGGTTTCACCATGTTGGCCAGGCTGGTCTTGGA CT

Sequence 912

AGGTACAAATTGTCGTTTTTATTCCTCTTATTGGGATATCATTTTAAAACTTTATTGGG
TTTTTATTGTTGTTGTTTGATCCCTAACCTACAAAGAGCCTTCCTATTCCCCTCGCTGT
TGGAGCAAACCATTAACCTTACTTCCAGCAAGCAAAGTGCTTTGACTTCTTGCTTCAGT
CATCAGCCAGCAAGAGGGAACAAAACCTGTTCTTTTGCAATTTGCCGCTGAGATATGGCAT
TGCACTGCTTATA

Sequence 913

TGGCCAGNTCAAATNACAACCCCCCAACCCCCCCCCCCCCCCCCCAAAACAGACAAGGA
CACAGNTACCANACAATGGATGTNCAGGNANTNGATATCAGCAGATATNTTAGNCCTNT
AGATAGGCTAATTTNANTNAGCAAAGGAAAGAGGAGGTANCATTAGNCAGATGGGNTATT
NACCTCTGAATTAGATGGCACTTACCCANCTTCTGGNACAGNCCTGCTGGNGGCGTCTAG
ACTAGTGATCCCGGCTGANGATCGATTAACTATCATCCGCGACCTCAGGGGGGGCCGGAC
CCACTTTTGTCCTTA

Sequence 914

CGAGGTACGCGGGACACTGGTGGGGGAGAGTCCGACGCGCCTGGCTAGGAGCGCCGACCG
CAGGGCCTCTACGGACCTTACTAGAAAAATGAAACCTGATGAAACTCCTATGTTTGACCC
AAGTCTACTCAAAGAAGTGGA CTGGAGTCAGAATACAGCTACATTTTCTCCAGCCATTTT
CCCAACACATCCTGGAGAAGGCTTGGTTTTGAGGCTTCATGCGAGAAAGGGGAATGGGGA
ATGGCTGCTTAACGGCATGTCTTTTTTTTTTTGAGACGGAGTCTTGCTCTGT

Sequence 915

CGCCCGGGCAGGTACGCGGGGACTTGACTTAACTCTGGGGCCCGGGAGGCCGCCGTTT
TCTCCCGCTTGCCGGGGTGGTCCTCTTCCCTTTGTCGGACCAAGAAGTAAACACTGTG
TGGAGAGGGAGTCGCTGTTTGGAGGGAATGGGAATGTACCT

Sequence 916

CCCCGCGTCCGCTCTCTGTGCGGGTCCCCTCCATCTCGCTGCTGCTGAAGGCCGCGAGGG
CGGCGGCGATGGCGGAGGCGGCGCTGTTGCTGCTGCCTGAGGCGGCGGCGGAGCGGGACG
CTAGGGAAAAGCTGGCTCTCTGGGATCGGAGACCGGACACGACGGCGCGCTGACCGACA
GGCAGACGGACTCGGTATTGGAGCTGAAGGCGGCGGCAGAGAACTTGCCGGTGCCAGCTG
AGCTTCCAATTGAAGACTTGTGCAGTTTAACTCCAGTCACTGCCATTGAAGTGA CT
CAGTAGTGCCTGAATCTACAGAAGACATTCTCTGAAGGGCTTCACTTCCTTAGGAATGG
AAGAAGAAAGAAATTGAAACCGCACAGCAGTTTTTCTCATGGTTTGCAAAGCTGCAAACT
CAGATGGATCAAGATGAAGGAATAAATATAGGAGCAGTGTGATGCTATATTGAATGATG
TAAACAGTGCTCTTCAGCATCTGGAGTC

TABLE 1
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Sequence 917

GGCTGTGGCCAAGAAACGCAGGGACCGCTCTCTCCCCGGGCTTTCGAAATCTTCACAGA
CAATAAACCTATGTCTTTAAGGCCAAGGATGAGAAGAATGCAGAAGAATGGCTCCAGTG
CATCAACGTGGCAGTTGCCCAAGCCAAAGAAAGGGAAAGTAGAGAAGTAACCACATATCT
GTAGGGAATTTATAAGTCAGCCATGACAATTATACACCACAGGCATTGTATTATCATTGC
CAATGTCAAGAAAAAGAGCTAAATTTACCAAGCCATGGTTGGNTTTTTACTAAATACCAT
GGGAATTTGTTGGTCCTTTAAGAAGAAGGGCCTTAAATGGCAGGGATTCTTAGTNAAA
TGNCAATACTCTAACAGCTTTAGTATTGACTTTAGAATATATCTGATGCCACAAAAATT
AAATAAAGGGNTTNGAGGAGGTTTGCCCNAAATAAGTGNGGGGCCCGAGGGGAA

Sequence 918

AGTCNCCACGCGTCCGCGGACGCGTGGGCGAGTGCCCAAGTGACCCTTTACGGGGGTAGCT
TTTACTCCGCACTCTCAGCCCCTGCCTCACCCTCCCTCAAGGCCCGGATTGACCATTTCT
CTGCTCCAGCACTCCATCCCTGGCTGCCACCTGCTTGGGAGAGCACAGACGGCATTGGCA
GTGATCCCTTCTTCCATTGTTCTGCCCTCTCAGAAAAGGAAGATAGAGCAGGCTGAACAT
GTCCCAGACAGTAACCTTTGGTGTAATGCTTCCTGTTTTCTGCCACAAGCCCTTTGGTC
TTACCCACTACCTCAGAGCACACTGCTAAGAAAATGAAAGCCACCAATGAGCCCAGCCTG
ACACATATGGGACTGCTCGACAGGTCCACTGTCCACGAGCAGAAGCTGGTCACAAAGCT
TGGGAAAT

Sequence 919

GGGAGTCGACCACGCGTCCGCGGACGCGTGGGCGAGTGCCCAAGTGACCCTTTACGGGGG
TAGCTTTTACTCCGCACTCTCAGCCCCTGCCTCACCCTCCCTCAAGGCCCGGATTGACC
ATTTCTGCTCCAGCACTCCATCCCTGGCTGCCACCTGCTTGGGAGAGCACAGACGGCAT
TGGCAGTGATCCCTTCTTCCATTGTTCTGCCCTCTCAGAAAAGGAAGATAGAGCAGGCTG
AACATGTCCCAGACAGTAACCTTTGGTGTAATGCTTCCTGTTTTCTGCCACAAGCCCTT
TGGTCTTACCCACTACCTCAGAGCACACTGCTAAGAAAATGAAAGCCACCAATGAGCCCA
GCCTGACACATATGGACTGCTCGACAGGTNCACTGTCCACGAGCAGAAGCTTGTCAAA
AGCTTGGAA

Sequence 920

AGTCGCCCCGCGTCCGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGACGCG
TGGGGGATGGATGACAGTCCACCAGAAAAAGTTAGTGGAGCGGGGACAAGCAGGGTTGC
AGAGTGGAAGAAAAATGTTCTGTGAGAAGAACTGTCCAAAGAGTNTGAAGAGAAAAGG
GAACAGGGTGAATTTGANGCCCTACAAGAAAAACAGGAGACCATTCAACAGGAGACGCC
AGGGAGCAGGTGGCTTTGTGGGCCTGATGTCCAAGAAAAGAAGTNCTGGTGGTAAACAGAG
ACTTGTGGATTGCAAGCTACTGTTGTCTTTCTATTGAA

Sequence 921

TCGGAGTCGCCACGCGTCCGGCCAGGCGTGCCTGGAAATCCGCTTTGCGAGCGCCCCCTC
GTAGCCCGCCTCCGCCCCGAGAAGGCGTTCCCTGGACAGAGAAGCGGGCGCGGGGGCG
GGCGCGTGGGGCCTTGCCGGAGAACCTGACTCTCCGCAGCAGCAGTGGAAGCCAGAGTGA
CGCGTTGTGTTGAACACCAAGTTTTCTGGAGCGCTGTGTGTTCTCAACAGCTGAGCAGTCT
GTTTCTCCAATCAGGTTTCAAAGCCACTTCAACTGCACTGGCCCTGTGGGTCACTGCTG
CACCGCCCTGGCCCATGTGGGTCCCTGAGGAGCGACCTGCCGGGGCCACCTGGCTGGACG
AAAAAGACACACTTTGGGACTTAAGCCGTGAGAAAAAACTTCATCAGTAAGAAACAAGT
CAATAGACAAGTAAAGACTAGGAGAAAATATGCATAAAACATAAAAAGTGAAGTTGGATT
CCTGATCTTGGAGTATTTAAGAATTCTATAACTTANAAAAGGTTTCAAGTTTTTTNAA
ATGAGCAAAAANGGTTTGGGTAA

Sequence 922

TCCGAGGCTGGGGGATCCCAAAGGGTGGGCTCCAGCCCCCAACCCAGGCACTGGGACTC
TGGTGGCACCCTGGGTGGCAGGCAAGCCTTGAAATCAAGTGACGAGCCTTGGAAGGAG
GACCGGGAGAGTTATGGCATTTATGAATGAAGAAGAGAAAGAGAATCACTCGGATGGGAA
AAGTTAACTGGATTGTTCCACCTGCATGGATCACCGGGTAAGTGCAGTGGGACCGAGG
GGGCGAGGCTGCGGGCTGGGGGATGTGCCGGGTTTCTTGTGTTGCCACGAACCCAGAGA

TABLE 1
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GGGAGAGGAAGAAGATGGAAAGAAAAAGGAAAAAGGGAAGGAAAGTAAGAGGGGAGAGAG
GGGAAAACTTGAGGATGAAAGAAGAGACAGAAGAAAGAAGACCTTGAGAGAGGGGA
GGAGAAAGGAAAGGAAGCNGGAAGGAGGAATTGGAAAGTGAAGGAAAGGGGGGAAACCAG
GCNGAGAAAAGAAAGAGAAAGGGGGGAAGGGAAAGAAGAAAGGGGAAAAGNAAGGGGGGGN
GGTTGAAAATCAACNCGAAAAAAGAGG

Sequence 923

CNCGCGTCCGGCTGTGATGAATGAGGTCTAGGAAATAATTTGCATGTGTCTTGGGGGACA
CAACAGTAACNGAGAGGAAATACATTATTACAGCAACTTGCGACGTACTAATACCTGTCA
GTGTTGGCCCCGTAAGGTATGTAAGGCACCTGNGANGTGCCAGTNAGTNCCTTGGTGN
AAGGCCAACATGTACTAGTTATGTAAGTATTGGTGTCTGCTTTAAAAAGGAGACCCAGA
CTTCACCTGTCCTCTTTAAACATTTGAGAACAGTGTTACTCTGAGCAGTTGGGCCACCTT
CACCTTATCCGACAGCTGACTGTTGGATGTGTCCATTGTCGCCAGTTTGGCTGTTGCCCG
GACAGGACAGGACCTCCATTGGGCGCAGCAGCAGGTGGCAGGGGGTGTGGCTTGAGGGTG
GGTGGCAAGCGT

Sequence 924

CCCCGCGTCCGCACAGATCCTTGAGCTCCGCTGCAGGATAGTACAGTTTTACCGCAGAGG
GAATCTGGAACAGTGAATCATGTGTCTGCCCTGTGTATTGCAGTTTGTATTGCCACAAG
CTATATTTATACCAGTGTCAACCTTTTCTGTAGAATATACTAATAAATCTGTGCCAACT
CTACCTTCTCACTTTTACCTCTGACGTCATTCTTTTTTCTGAAAGAGGTAATAATTCTA
GTTTTGATAGACTCTGAGGATTATGTGAACAGGACATTTTTTCACTTGTGAATTAATGCT
ATACTGTCAAGGTACTTGCTTGTGTCTGAACCTCTAGTGCATTATGATTTTGTAGACCCA
TGTGAAATTAATAAGATACGTTTTTTTCTTTCTTTGGTGTGGTAGTGCAGCAACAGT
TTGGTCTGCATTTGTTAGAAGTTTAACTCCTAACAAACCAAAGACCTATTTA

Sequence 925

GCGTCCGACCCCAAAGGGAGGGACCACATTGCACACACTGTAAGAAATGCACCTTCCGAG
GAAGGGGATGGGGGAGCCCGGACACCCAGAGCTCCCGAGTTGGGGGTGCCCGTCTGGAG
CGCCCCCGTCAGCCCCTGGCGGTGGGAGGTGAGAGCGAGTGGTTTAAGTGCCTGATTACC
ACCACCCGCCCCCCCTTTGTCCAGCTGGGACACGGAATGGCCGCGGGCCTCCTCCCCCT
CCCCTCCAGCCTCTCCACCAGCCCCTCCAGTCAACCCTCATCGCCGTGCCCCCCCAGAGC
TAGAGAGATGGGGCCCCCTGCGTGGCCCGAGGGGCAGAGCTGGGCGTCACCTCGCAAGCGT
CCTGCCCTGCCGGGGCGCGGGGGTGGGCTCTGGGGAAGCCGGTGCGCCCCCCACGCCTNC
GCTGCCAGTGCCCTACATTCTGGAGCGACCCCCCTCCCTGGTGCCTCCCAGCGAAGGGGG
ACCCGC

Sequence 926

AGACAGCTCAAGCCTTGCCACTTCGGGCTTCTCACTGCAGCTGGGCTTGGACTTCGGAGT
TTTGCCATTGCCAGTGGGACGTCTGAGACTTCTCCTTCAAGTACTTGGCAGATCACTCT
CTTAGCAGGTAGGTGCCGCAGACCCTGCGGGTTAAGAGGTGGGGTGGGGGGCAGTGCTTG
CCAAGGCCCTAACTGGGAGCGCTGGGTGAGGGGAACAACCCACTTTGGAGGGTCTCTG
AGAGATAGATACACCCCATATCCTGGGCCAGCTCGTGCACACAGCTGGAGGTCCAGAGA
CCCAGTCCCCTCTGCTCCGTCAAGCAAGTTCCAAGAAAGTTGAGCAGAGACCCCTCTGGGA
GCCTGGCGGGGTGCAGCGGCCTCCCCTGCGGGCCTGTACCCGCGCGGGCGGTGCAAA
CGCCTCTGGCGCCTNTNTGCGCGGGAGGGGAGATAAGCGTCTGAGCCAGGGAAGCCGCC
GGGCTAAACCCGCCTTTTCCGGGGGCCCC

Sequence 927

CGCGTCCGGTCAATACATGTCATTGTTGGGACCCGTTTCTAAATACATCTGCTGCCT
ACATTCTGCTCACACATACGCTTGACGCTTTGAGGCAGGAGAGGGTAGTTGTGCTTCCC
TAGGAAGAGTGTCTTCAAAGTGTTCTTCACTCTTTTGGCCCTGCTTGGTTTCTTCATT
GTTTCTTTGGACACAGATTCTGGAACAGAAATTATTCTTCATAGGCTTTATCATCATGG
GATTCTTCTTTATATACTGATTACAAGACTGACACCTATCAAAGTATGATGTGAATCTG
ATTCTGACAGCTGTCACTGGAAGCGTCNGTGAATGTTCTTGGTAGCTGTGTGGTGGCCG
ATTTGGAATCCTCTCGATCTGCATGCTCTGTGTTGGACTAGTGCTGGGGGTCTCATCTC

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GGTCANGTGACTTTCTTTACTCCACTGGGAAACCTAAAGAATTTTTTCATGATGATTGGG
TGTATTCTGGGTCACTTTCTCTTGCCATAAGCTATNCTCATTCCAGTAGTTT

Sequence 928

CCACGCGTCCGGACGCTGCGTGGAAGCGGCGGAGCCGGAGGGAAGCAAAGGACCGTCTGC
GCTGCTGTCCCCGCCCGCGCTCTGCGCCCTCGTCCCTGGCGGTGCTCCGAAGCTC
AGCCCTCTTGCTGCCCCGGAGCTGTCCCGGGCTAGCCGAGAAGAGAGCGGCCGCAAGT
TTGGGCGCGCGCAGGCGGCGGGCCGCGGGCACTGGGCGCCTCGCTGGGGCGGGGGGAGGT
GGCTACCGCTCCCGGCTTGCGCTCCCGCGCGCACTTCGGCGATGGCTTTTCCGCCGCGG
CGACGGCTGCGCCTCGGTCCCGCGGCTCCCGCTTCTCTCTCGGACTCCTGCTACCT
NTGTGCCGCGCCTTCAACCTAAGACGTGGACAGTCTGCCGAGTACTCTGGCCCCGAGG
GGAAGTTA

Sequence 929

CGACGGCCANGGCGCCTCCGAGTTCCCCGCCAGGACTCGGAGGGCCAGGAGGGCGCGACC
TGGGTGGATATTTTGTGGACGGCGCAACTCTTGGGTGGCCCGGAGCGGCGGAAACC
GAGCGAGAGAACCAGGAGGCGCTGCGCAGAAGGAGGCCCGGGGGCTCCGAGGCGTTGAGG
GGCTCGATCTGCGTTCTGGGGTTGGCAGCCGAGAGGCCGCGGTCCCTGAGTGCCAGAGGT
GGTGGTGTGCTTATCTTCTGGAACCCCATGCAGCCAGATCCAGGCCTAGCGGGGCTGG
GGCCTGCTGCCGATTCTGCCCCCTGCAGTCACAGTGCCCTGAGGGGGCAGGGGACGCGGT
GATGTACGCCTCCACTGAGTGCAAGGCGGAGGTGACGCCCTCCAGCATGGCAACCGCAC
CTCAGCTACACCCTGNAGGGATCATACCAAGCAGGCCTTTGG

Sequence 930

CGTCCGCTTTNAGACCGGAAGACATTTAAAGCCAGTTTACGTACANGAAGCATGGTTTT
AGATTAAGTGCCTGTTGGTACAGCTAGAAACATTGCAGCCCTATCGCTTATTTATCTTGC
ATGTTGCTCTGCTTTGCTATGAAAAATATCGTTTTATGATAAACTTGTGAATTTTGT
ATGTATTCGGTTATACTCTTAGGGAAAAATAAGAAATTAGAGTGAGAGAAAGTGCTATG
TATATTAGGCTTTAGATTTTATAGATATAGGCTTAAGGGAGGGTGGAGGTTCTTTTTT
AAGTTGAATGACTACTTAAATTTGTTGATGTGAATTTAAGTTTTAAAGATTATTATTAAT
TAACTCTTCTCTTTGTCTTTGCATTTACCTTCCCAGATGTTCCAGCCTATCATTTTACTT
ATTCTCATTCTTGATTATTTTCATCACTTTCTTACACAACAATATTTAACTTGNCTTC
CTTTTACACTGGTTTTTGGTAC

Sequence 931

CACGCGTCCGTGGAGTATGTGCCATCTGCCAAAGTGAGGTGGTGGAGGAGCGCCAGGCC
ATCCCTCTAGACGAGAACGAGGGCATCTATGTGCAGGATGTCAAGACCGGAAAGGTGCGC
GCTGTGATTGGAAGCACCTACATGCTGACCCAGGACGAAGTCTGTGGGAGAAAGAGCTG
CCTCCCGGGGTGGAGGAGCTGCTGAACAAGGGGCAGGACCCTCTGGCAGACAGGGGTGAG
AAGGACACAGCTAAGAGCCTCCAGCCCTTGGCGCCCCGGAACAAGACCCGTGTGGTCAAG
CTACCCGCGTGCCCCAC

Sequence 932

GGTTCGCCCACGCGTCCGCCCTGCTACCCTGGGAGAAGCCTCAGCTTTCTGGGCAGAGTT
TGTCTCCCTGTCATTTATACTCTCAGGCTTTATACATTTACACAGTAAGTTCTCCCTCCT
GGAGGGTTAAAAGGAATAATTTCAACAGGGTGAAGGCCTGGCACGGTGGCTCACAAGTGT
AATCCAAGGACTTTGGGAGGCTGAGGTGGGTGGATCACCTGAGGTGAGGAATTTGAGACC
AGCCTGGCCAACCTTGGTGAACCCCTGTCTCTACTAAAAACAAAAATTAGCCAGGTGAGGT
GGCACACACCTATAGCCCCAGCTACTGGGGGAGGCTGAGGCAGGAGAATTGCTTGAACCT
GGGAGGCAGAGGTTACAGTGAGCTGAGATGGCACCCTGCACTCCAGCCTAGGTGACAAA
GCAGCAAGACGCATTCTNAAAACAAAACANCAACAACAACAAAAAACGGGAAAAACA

Sequence 933

CNCGCGTCCGGTCCACTGTCATCTCCTGGGTTTTCTCTGCTCTTTTATTTGGTGATCCTG
GTTCTTTTCGGCCGTTACGTCATTGTGTGCACCTCAGCTGAAAGTTCTGTCTACTTCTGT
GGCCTCTCGTGGCTGGCGGCAGGTGGGGTGATGGTGCTGGCCTCGGCGCTGCTGTGTGTG
ATTGTGTCTGTTCTGACCAACGTGCTCGTGGGTGGAAACACCCCAAGGAAGAACCCCATG

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CATCCCAGCTCAAGGTGGTCAGAGCTAGACCTTCTTATTCTGTTGGGGACGGCGGGCCAC
GTCTTGAGCCTGGGCGCCAGCAGCTTCGTGGAGGAGGAGCACCAGACCTGGTACTTCCTT
GTGAACACCCTGTGTCTAGCTCTGAGCCAAGAAACCTACAGAACTACTTT

Sequence 934

TCGCCCCGCGTCCGGTTATTTTACCCAGAAGCCGGATAGAGAAAATATTACAGAGAAAAT
CACATATCACATGGGCTCGAAAGATGTAGAGGTTTTTGACAAATGAAGAACAACCATAAC
AGGTAGAGGGAACACCATGAACCAGGGCATGAAACTGAAAGTGCATAACATATTCTAGAG
AGAGAAGGGTGTGGGCATGAGTTAGGGCTGGAAAAACAGGTTGGAAACAGATAAGTAAGG
GTCTCAAATGCAATGTCAAAGAGCTTGCAGTTTATTTTCCAGGCAATGAGTAGGCAGCCA
AAAAAAAAAAGTAAGGATGTTTTTTTTTTTTTCCCATGGCATCATATTTAAGAGGATGG
ATTTAAATTGTGTGAGACCAAAGCATAGAGACTAGATAAGAGGGCGATCATTATTTCAA
AAGAAATAATGAAGATCCAATGAAGGAAGTGGGAAATTAATAAGGGGAAGAGAGGTA

Sequence 935

CCGTCCGGTTTTTTGTCTCAGAGTCTTCAGGCTGTACAGGAAATGTGGTGCCGGCATCT
GCTTCTGACGGAGTCTCACTCTGTCGCTCAGGCTGGAGTGCAGTGGCATGATCTCGGCTC
ACTGCAACGTCCGCCTCCTGGGTTCAAGCCATTCTTCTGCCTCAGCCTCCCGAGTAGGTG
GGACTACAGTGGCCATGTGTCTGAGATCTAACCAAGGGAACATGGGTGGAACATGATGTAA
GCCACTTTGACACCACAAAACCTCCCATGGGTTCTCTCTCTTCTCTGTTGTAAGTGT
TGGATGGAGAAGATGCTGAGAAATAGTGGGAAGTCTAGGGGATGGAAGAACCAGGATT
CTGAATACTCCATTGGACCTTACGTTTTGGAATCAGGNATGATGCTGGCCTTCATAAAAT
GAGTTATGGAGAAAGTCCCTCTTTTTCTGGTGTTTGAACANGTTTTCAGAAANGAATTT
GNTACCCAGCTTCCNTCTTTGTACC

Sequence 936

CCGGTGAGCGCCCCGCGCTCAGCCGCCAGATCAACCTTAGCGCTGGGGCGCGGGCTGG
GGTCGCCAGGCGGTGCGTTCTGCCCGCGCGGGGCTGAGAGTTAGGGGCCGGGGCCGGATC
CGGGGCCGGGGGTGCGCGCCGCTAGCCGCCAGCAGCGCAGTCCGGGCCGCCACCCTGCACC
CTCCGCCCTGTTTCTGCACCCGTCTGGGTTCTGTGCCGCCGCCGCAAGCCTTCCCGAG
CTCAGGGTGGTGAGCTGCGGAGACCCGTGATAATTGTTAACTAATTCAACAAACGGGAC
CCTTCTGTGTGCCAGAAACCGCAAGCAGTTGCTAACCCAGTGGGACAANGCGGATTGGAA
GAGCGGGAAGGTCTGGCCCAGAGCAAGTGTGACACTTCCCTCTTGACCATGAACTCT
NGGGTGTCTGCATTGCTGATGGC

Sequence 937

GTCCGCCGGCATGAGCTGTCCATGAAGGATGAGCTGCTTCAGTTCTACACCAGCGCTGCG
GAGGAGAGTGAGCCCGAGTCCGTTTGCTCAACCCCGTTGAAGAGGAATGAGTCGTCTCTCC
TCAGTCCAGAATTACTTTTCAATTGGATTCTCTTCAAAAAGAAGCTGAAAGACCTTGAAGAG
GAGAATGTTGTAATTCGATCCGAGGCCAGCCAGCTGAAGACAGAGACCATCACCTATGAG
GAGAAGGAGCAGCAGCTGGTCAATGACTGCGTGAAGGAGCTGAGGGATGCCAATGTCCAG
ATTGCTAGTATCTCAGAGGAACTGGCCAAGAAGACGGAAGATGCTNTCCGCCAGCAATGA
GGAGATCACACA

Sequence 938

CCCGCGTCCGGAATTCAGTTGTGGATGAAGGAAATGGTGTTATGACTGCCTCAAGGTTT
TGTAAGCAAGTCATAGGGAACCAAAAGAGGAATCTTGTTTTCTCAGAGGTCATGCCAACT
CCAACCTCCCGTTCCCTAACTGTCTCTGAGCCATAGACTAGTAATGGACTCTTCAAGCTC
TACCATTAGGTATCTTTTAAAGAAAGCTGGTTATTACTATTTATTCATTTTTTCTCTTC
TGTGCAGTGCAAAAGATATGAAACATCGGCTAGGTTTCCTGCTGCAAAAATCTGATTCCT
GTGAACACAATTCTCCCAACAAGAAGGACAAAGTGGTTATTTGCCAGAGAGTGAGCC
AAGAGGAAGTCAAGAAATGGGCTGAATCACTGGAAAACCTGATTAGTCATGGAATGTGGG
CTGGCAGCTTTCAAAGCTTTCTTGAAGTCTGAATATAGTGAGGAGGAATATTGACTTCTG
GATCAAGCTGTGNAAGAGTACAAGAAAATC

Sequence 939

CGTCCGGCCGGCGACGGCGGCAGTGGCGGCCCGGCCTGCAGGAGCCCGACGGGGTCTCTG

TABLE 1
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CCATGGGGGAGTGACGCGCCTGCACCCGCTGTTCCGCGGCAGCGGCGAGACATGAGGAGA
CCCCGCGACAGGGGCGAGCGGCGGCGGCTCGTGAGCCCCGGGATGGAGGAGAAATACGGCG
GGGACGTGCTGGCCGGCCCCGGCGGCGGCGGCGGCTTGGGCGGTGGACGTACCCAGCG
CTCGATTAAACAAAATATATTGTGTTACTATGTTTCACTAAATTTTGAAGGCTGTGGGAC
TTTTCGAATCATATGATCTCCTAAAAGCTGTTACATTGTTTCACTTTTATATTA
AACTTGGGACTGCATTTTTATGGTTTTGTTCAAAGCCATTTCTTCTGGGAAAAT
ATTACCAAACACCAGATAATTGGATCACTAAAATTCCTGGTAGAAAAGAATTTAAAGAC
AAA

Sequence 940

TCCGAAAGNGTACTGCCATGANCCGAGATAGGAGACACATAAGAGGACAGCAGAAGCCCT
GGCCCTGGGGAGGCTTCTCGGAAGGCCTGGCTTACAGGCAGGCCACAGAAGGATATCG
GGGACCCGTGCACCCAAAGCAAGATAGTGGCTTCCCTTTTATATCCAATCTAATCCTGAT
TGGATGTCCCTGAGGCCCCCTGCTGAAACAGCCATAGGAGAGGGCCCATGGCAGTAGGGG
AAAGAAGGAAGAAATTCCTGCAACAAAATTCAGCTAACTTTGATTTGTGATTGTTT
ACATAATAATTTTAAAGGGTACATAATGTGTAAAGAGTTTGGATAGAACCTCTCTTCATA
CTATGGTTTTCGTAAAGGATCTGTTGTTGTTACGGATTCACTTTTTCCCTCTATTTTTAT
AAAGAGCAGCAGAGTTGTCTTCTCAAAACGGCTGCCAAGCTCTGCTTCTTGGGAAGAT

Sequence 941

CCCGGTGCTGCGGGTGGGGCGGGCGGGCGGGCGGCGGCGGCTNTCAGGTGATTGA
CTGGCCAGCTGCCTGAAGGAGCGCCAGGTCTCTTCTGCTGGCAGGTGGCGAAGCCCATTG
GGGCGGCGGTGCAGACCCGCGGCGGCGGCTGCGGGCGGTCTGGCTCGGGAGGCGTTCTCTGG
GGCCAAGGCCATGGCCCCGCGGCTGCAGCTGGAGAAGGCGGCCTGGCGCTGGGCGGAGAC
GGTGCGGGCCCGAGGAGGTGTCNCAGGAGCACATCGAGACCGCTTACCGCATCTGGCTGGA
GCCCTGCATTGCGGGCGTTGTGCAGACGAAACTGCAAAGGAAATCCGAATTGCTTGGTTG
G

Sequence 942

CACCCACCCAGATGCCGCTGGCACCAAGCGCAGCCGCCAGCTGCCGCACTTTCCACTT
GTATTGATCACCTATNANNCCGCGCANAAACGGCTACGNCCGAGCGGACCGCGGCCAGCG
CGCCAGCCCTTGGCACNCCCTNGGAGCAGAAAGGGCTCCGGGAGGAACTCCTTGGGAGC
GCCCTGTCCGGANTGCCCTTTGCTCTCTGCAGTGTGATTTCTTTCTGTTCTGGGAGGAGG
AGGAGGAGGANGAAGAGGAGGANGAGGNAGAACGANANNCTGCCCTTCCAGAGGTTGGTG
AGGGAGATCGCGCATGGATTTNAAAACCNACCTGAGGTTTCAAGCGCAGCCATCGGTTG
CNCTGCANGAGGCTAGCGAAGCGTACCTGGTGGNTCTGTTGAAAGA

Sequence 943

GTCCGGTTTTGAAACAGAAATGTAGGCATTAGACTTCCTGGGCGGCAGACAAACCAAAGA
GCGGAAATTCATGCAGCCTGCAAAGCCATTGAACAAGCAAAGACTCAAACATCAATAAA
CTGGTTCTGTATACAGACAGTATGTTTACGATAAATGGTAAGCTTTCACATTTGATTTCT
TCTGTTTTTCCAGTAACTGTGAAGGGAAATGGTAGGAGGTGTTGTAACAGGGCAGGACC
CAAATGGGAACGGGGGGATGACATTGTTTTGTCAGGTACCGAGCAAAGAGTGAGGATTTT
GGAGTCTCCCTTCTGCTGCTCTGATGTTTTCCACATGCTTATTTCTTGGCAGGCACTGG
AGATGCAGTCAAGAAGTGGGAAGTGGCTCTTACTTCTAGTCTGTGTGTGTATAAGTCACT
TAAGATGGCCGTGTTGACTGCTTCTTGGGAAATGCCCTGAATAGGAGCATGTAGGGGAT
GCTTACCGAGGCTGGGGAAGG

Sequence 944

GCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGGCCCCGACCCGAGCCCGACC
CCGAGCCCAAGCCCGAGCCCGAGCCCGAGCGAGACCCCGAGCCCGAGCCCGAGCGCGACC
CCCGGTGCGGCGCGGCTACCCCGGCGGAGGCGGNGGGCGCGGGGCGCGCTCTGAGGCCCG
GGGATGCGCCCGCCGCTCGACCATGGGCGCGCCGCGCTCCAGGAGGAGGGCGCTGAGGA
GCGAGGCCATGTCTCGGTGGCGGCCAAAGTGCGAGCAGCCCGAGCGTTTGGAGAGNACC
TGTTCCAGAGTCAACCTGAGAACCGCAACGGCCGCGAGATCACTGCTGGCTGATGCCTA
CTCTGGCCACGACGGGTCCCCCGAGATGCAGCCGGCCCCCAGAACAAGCGCCGCTGTC

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CCTCGTTCTCCAACGGCTGCTACGAGGGCAAGCCTTCTCAGAGGAAGCCCAAGCATTAGG
AAGCCCGCAGGC

Sequence 945

CGCGTCCGGCACGGGGGAGTCTGTGGTGGCCNGTTTACCTGGGCATCTGGCTGAGAGGAA
GAAAGGCCAACCTGATCCTGAGGGGACCCAGACATATCCTTTGCACTGTCCCTAGAGGGG
CGATGAGCTTTGCAGCATTAAAAAATGGTGAAGGGGGGAAATATTTTGAACCAAAGACCA
AATGTTAGGCCGCCGTTATATTTGCAGAAGCTTTGAGAACCATGCGTATAGCCTCCTGCA
TTCTCCCCTCTCCTAGGAGCTCTTTTGTCTCTGTCTTACGAGGCGTCATACAGAGGCAG
TGGGGTGGGCACAGATGAGCAGAGTGGATGGTTCGGTGGGTCCCCACGAGGGCGAGTGGT
GGTCATATGTGATGGCACCGTGTTACACACCCCTCCTGTGTACCCCCCAGGGTCACCCG
AAGTCCCCACACGCTGGCTCTCCACACCCCTCCTGTTCCAGAAAGCATGTCCCG

Sequence 946

TCGACCNCGCGTCCGGCACTCCCTCTGGCCGGCCAGGGCGCCTTCAGCCCAACCTCCCC
AGCCCCACGGGCGCCACGGAACCCGCTCGATCTCGCCGCCAACTGGTAGACATGGAGACC
CCTGCCTGGCCCCGGGTCCCGCGCCCCGAGACCGCCGTCGCTCGGACGCTCCTGCTCGGC
TGGGTCTTCGCCCAGGTGGCCGGCGCTTCAGGCACTACAAATACTGTGGCAGCATATAAT
TTAACTTGAAAATCAACTAATTTCAAGACAATTTGGAGTGGGAACCCAAACCCGTCAT
CAAGTCTACACTGTTCAAATAAGCACTAAGTCAGGGAGATTGGAAAAGCAAATGCTTTTA
CAC

Sequence 947

ACCCCGCGTCCGCTTTTGCATCTGGATCATTTTTCTTTGCCCCACCATGTAAGAAGTGC
CTTTACCTCCCACCATGAACCTGAGGCCTCCCGAGTCATGTGGAATCGCCCCAGCCA
CCCCACCCAGAGGGCTACGTCCTGGCAGAGCTGGGTTTGGTTAGTTCTGAGGGCTGAGC
TGGCCCAGCAGCTCCAGACCTCCAGACCTTGCACTCACCTGTGAACCTGACTCTGCAAA
TCCTCCAAGATGCGCCCACCACACTCCAGTGAACAACACCTACAGGAGCTTGGAGTTCT
ATTCTCAGATACATCAGCTTCCACATTCTGTGTGTCCCAGCTGGAGAAGCAAGAAGTCC
CAGACCATGTGCTAAGCACACGTTGGGGTGGGGATGAAATCCAATTGGTGGTGTGTGAAT
CCATGCTGGATTCTGAAGCTGAGGCCAGAGGAGGAAGCTTTCTTAATCAACTTCTTAA
CATG

Sequence 948

TAAAAGCCATGGTNATTTGTGCACTGTGCAGTTTCTTATTAGCAAAGGTGCCAATGTAA
CAGGGCTACAGCCAATAATGATCATACAGTAGTGTGCTGGCATGTGCAGGAGGCCACCT
GGCAGTTGTTGAGCTTCTCTTGGCTCATGGGGCTGACCCTACTCATCGACTCAAGGATGG
TTCAACAATGCTCATTGAAGCTGCAAAGGGTGGCCATACTAATGTAGTTTCTTATCTGTT
GGATTATCCAAATAATGTTCTGTGAGTTCACACAGATGTGTCTCAGCTCCCTCCACC
TTCTCAAGATCAGTCTCAGGTGCCACGTGTGCCAACGCATACACTTGCCATGGTTGTACC
TNCCCAGGAACCTGACAGAACTTCACAGGAGAACTCTCCTGCCCTTTTAGGAGTGCAAAA
A

Sequence 949

CCACGCGTNCGGTCGGCCTGTGCGGCGCTGCGGCGGAGCGGGCCATGGCAGTGGGGAGGG
GGCGAGTGTAGTGCTGCGCGGGGACGGCGGGAGGTGATCGAGAGAGGCAGGGATGGGGGC
GCCGGAGTGGAGCGGTTGCGGCGGNCTGGGTGCTGACTGCGCACTTGAATAGTAGCAG
GCGGCGGCGGCGGAACGCCAGGCAGTGTATGTTTAACTGGAAAAAGTCTTCCATGAAAA
CCGTCACCTTTTAAAAAATAAGGTAATGCCATTCTGTTTTTCTTAAAAAAGACCTGAA
AATGGGGGGGGCCGAACACATTCTTAGGGGCCCGGTGGNNTATTGAAATGTGCCCTTTC
AAGTTTTTCATTAAATGCNCTCCTGGCTTATTGGGCAGGACCATTCCTTTGAACCAATCC
TGGGGGCGGGGCTGGGATTTCAACAAGAATTAGGCAATTCTTGAATGGGCCTTCCAATA
ACCCTGNTGGGGAATTTTCCNTTTTNGCCCCAACCTTGGGGGAATTTNATTATTTNC
AAGNTTTGGGGAAGGGTTACCCTTCNGGGGGAAANGCTTAACCCAATTTTTC

Sequence 950

TTNNGGAGTCGCCACGCGTCCGGCCGGCGACGGCGGCAAGTGGCGGCCCGGCCTGCAGGA

TABLE 1

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GCCCGACGGGGTCTCTGCCATGGGGGAGTGACGCGCCTGCACCCGCTGTTCCGCGGCAGC
GGCGAGACATGAGGAGACCCCGCGACAGGGGCAGCGCGCGGGCTCGTGAGCCCCGGGAT
GGAGGAGAAATACGGCGGGGACGTGCTGGCCGGCCCCGGCGGCGGGCGGCCTTGGGCC
GGTGGACGTACCCAGCGCTCGATTAACAAAATATATTGTGTTACTATGTTTCACTAAATT
TTTGAAGGCTGTGGGACTTTTCGAATCATATGATCTCCTAAAAGCTGTTACATTGTTCA
GTTCATTTTATATTAACAACTTGGGACTGCATTTTTATGGTTTTGTTTCAAAGCCAT
TTTCTTCTGGGAAAAC

Sequence 951

NNTCCGGAGTCGACCNCGCGTCCGCGGCTGCTGCCTGCTCTGGAGGCAGGCTGGGCGGTG
GCGGCCGAGACTGGCGGGGGTGGACGCCCGGGCGGGCTGCGCCCGCTTCTTGACAGCTGT
GAATTCCTTTGGACAATTGATGATATTTATCATTGTGCCAGTTTCTACAAATAAAAGAT
GGGTGGATTATTTCTCGATGGAGGACAAAACCTTCAACTGTAGAAGTTCTAGAAAGTAT
AGATAAGGAAATCAAGCATTGGAAGAATTTAGGGAAAAAATCAGAGATTACAAAAATT
ATGGGTGGAAGATTAATTCTGTATTCCTCAGTTCTCTATCTGTTACATGCTTAATTGT
ATATTTGTGGTATCTTCCTGATGAATTTACAGCAAGACTTGCCATGACACTCCCATTTTT
TGCTTTTCCATTGATCATCTGGAGCATAAGAACAGTAATTATTTCTTCTTTCCAAGAG
AACAGAAAGAAATAATGAAGCATTGGATGGA

Sequence 952

TCNCCCCGCGCCGGTTTTGATACAGAATGAAAGTGCGTAGTATTTTCATTTTGTTTATTT
TTGCCTTATACATATAGCAAGCCCTCAATAAATAAATATTGAATGAATGAATGAGTGAGT
GAAGAATTTGTTTATAACAGTCTGTCATCTTGATAACACTGGAATGTCTTTGGTTCTTCC
ACTTCATCCTTTATGTTTTAACTTACACACACCATTCTTACACGTCACTAAAGGAAAAT
ACCAGTATATATTGGCTAAAATTTTTTTTTGTTGTTCAAACCTGAACTCAAATGCCTA
ATTGGGCTAGGGGTCCTCTTAAAGGAGGTTGATGTTTGCAAATGGGTTATTTTTTAAAA
GCAGTAGATAATTGCTTATTTCAAGGCAAGTAAATGAATTTAGACTAAGCTGTTCATAGG
ATTCATCATTTTTTCCCCTCTCCCAAAGTAATTTGTAAGCCGTAAAC

Sequence 953

TCGCCCCGCGTCCGTGATTTCTCAGTGTTCTCCTTAGATACCAAATACAAAGGACGAGGG
ATCAAGCTCAGCGAAAGTATCAGGCATTTAAGGTATCAGGCAGCAATGCGGGGAAAGGTG
AATTTTCTTCAATCAGCATAGGATGGTTAGGGAAGAGCATTTATCACTTTGGTTCTTATC
CTTCAAGCCAGGGGAAAAGCAACAGTGAGGACATCAGAGACAAAAGCATTTATAGAATA
ACAAACACAAACGTTTGACAAGTGAGAAAGCTTTATTAAGCACACATACATGTCAGGGG
GGTGGGAAACAAAAGAGCAAGTTACAGCCCGGGATCCCAAGTTATGCCTTCCATTACAAT
TGCAATCCACACCAAATCAATCTTTGAAAACATTCTCCATTGCGTTCATACATACAGTA
GAAACCACTGTGGCTGCCCTTAATCCAGTGTGCTTATAGGAAATCAGTTAGCAGCTGACT
CTGTTGAAAG

Sequence 954

CGTCCGGACCCTTATTAAGAATATCCCAGGAAGATGGTGATGAACAGCCTCAGTTTACTT
TTCCACCAGATGAATTCAGTACAAAAAATTACAACAAAAATATTACAGCAGATTGAGG
AACCATTGGCACTGGTGTGAACAATTAACCAGCAAATGTCCTTTTCTAATACCATTGAA
ACTAGACAGCTTTATTTACATGTACAGCATTTGGCGCCTCAAGAGCAATAGTATGGTTA
CAGAACCGACGTGAAGCCAATGTGGAGCGAAGCAGAAACCACAAGCAGTGTTAGGCGAGAT
GACCCTGGAGAGTTTCGAGTTGGTCG1CTCAAGCATGAAAGAGTAAAGTTCCACGTGGC
GAGTCACTGATGGAATGGGCTGAGAATGTCATGCAAATACATGCAGATCGGAAATCAGTT
CTTGAGGTTGAATTTTTAGGAGAAGAAGGAAGTGGCTTGGGACCCACATTAGAGTTTAT
GCTCTGGTG

Sequence 955

ACCACGCGTNCGGGCAGAAATACGGCGGCATGTTCTGCAACGTGGAGGGCGCCTTCGAGA
GCAAGGACGCTGGATTTGATGCCCTCAGCGTGGGGCAGCGGGGCGCAAGACTCCTCGG
AGCGGCCAGGGCAGCGACCGAGGATCGGGGAGTCGGCCCGGGATCGAGGGGACACCCCG
CGCAGGGGCCAAGGCCGNAAGAGAGCAGGGAGCCCGCGCCCGCCTCCCCCGCCCCCGCC

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GGGGTAGAGATCCGGAGCGCCACCGGCAAAGAGGTGTTGCAGAACCTCGGCCCAAGGAC
AAGAGTGACCGTCTNCTTATCAAGGGAGGCAGAATCGTCAATGATGATCAGTCCTTTTAT
GCTGATATTTACATGGAAGATGGCTTAATAAAACAAATTGGAGACAATCTGATTGTTCCCT
GGAGGAGTGAAGACCATTGAAGCC

Sequence 956

CCCGCGTCCGCTACTGTACTTTGCAGTTTGATGTTTATTAACATTCTTTGGGCACCTAGC
TACAATATAACTCAATTTTCTGTGAAAACTATTAATCATCCTATTTTTCTTGTCCTT
AATATGAGATAAAATTTATACCACTGTTTCTCAAACCATCTGTTGTGAGGGACAGTTTG
CTTTTAAATTTCCAATTGTCAGAGACCAATACTTTGTAAAATATAATTAAAAACAAACA
TAAAAATAAACTTATTAGAAAAATGAAATAAAAGAGAAATGAAATAAGAATAATTTTATT
ATTAGATTTAACAGATCAAATATTATTTCAATACTCAGATCAAATGTGCAATAAGACAGG
GTTGCAAAAAATGCACACTTTTTTATTAAATCATTTATATAAGTAATTTATATAAAAA
TAATATTACAGTTGCAACTTTCTGGTGNCTCTCAACTATGACCAAACAGGAGGGTACAAG
TAAAGGAGCAATCCCA

Sequence 957

GTGACCACGCGTCCGCAGCAAAAGTGCCTGGCTGAAGGACACTGTTGACCCAAAAGTGG
TGACCCTCAACCACCGCATTGCTGCCCTCACAGGCCTTGATGTCCGGCCTCCCTATGCAG
AGTATCTGCAGGTGGTGAAGTATGGCATCGGAGGACACTATGAGCCTCACTTTGACCATG
CTACGTCACCAAGCAGCCCCCTCTACAGAATGAAGTCAGGAAACCGAGTTGCAACATTTA
TGATCTATCTGAGCTCGGTGGAAGCTGGAGGAGCCACAGCCTTCATCTATGCCAACCTCA
GCGTGCTGTGGTTAGGAATGCAGCACTGTTTTGGTGGAACTGCACAGGAGTGGTGAAG
GGGACAGTGACACACTTCATGCTGGCTGTCCTGTCCTGGTGGGAGATAAGTTGGGTGGCC
ACAAGTGGATACATGAGTATGGACAGGAATCCGCAGACCCTGCAGCTNCAGC

Sequence 958

GTGACCACGCGTCCGCGCCAACTCCGGAGGCGCGGTGCTCGGCCCGGGAGCGCGAGCGG
GAGGAGCAGAGACCCGCAGCCGGGAGCCCGAGCGCGGGCGATGCAGGCTCCGCGAGCGGG
ACCTGCGGCTCCTCTAAGCTACGACCGTCGTCTCCGCGGCAGCAGCGCGGGCCCCAGCAG
CCTCGGCAGCCACAGCCGCTGCAGCCGGGGCAGCCTCCGCTGCTGTGCGCTCCTCTGATG
CGCTTGCCCTCTCCCGGCCCGGGACTCCGGGAGAATGTGGGTCTAGGCATCGCGGCAA
CTTTTTGCGGATTGTTCTTGCTTCCAGGCTTTGCGCTGCAAATCCAGTGCTACCAAGTGTG
AAGAATTCCAGCTGAACAACGACTGCTCCTCCCCGAGTTCATTGTGAATTGCACGGTGA
ACGTTCAAGAC

Sequence 959

CCACGCGTCCGAGGGTGGGGAAAGGAGGAGAGGAAGAGCACTCCCTTCCCTGGCCCCCTCA
TCCAGCCTCCGGTGCTGTAAAACGCAGGCGCTGGGCCGCGGGCGGAGCTGAGGACAGGCC
TTGGCTGGTCCAGGATGAGCGACGAGTTTGGTTTTAGCTGGGGATTGTGCTGGCATCCT
GCCAAGCTCCTCCAGCCGGTCTCTGTGCTCGGTTGTCTTGGGTGGGGCCCATCCGC
CGAGGTGGGGACCGATAGGAGAAGCCGGTGGGTTGTACCCTTACACTTGTGGAGTCTCCT
CTTGCTCTACCTACTCCGCCTTTGTCTTAAGGTTTTTGACAGGCCAGTGCCAAACACAC
ACTAACTGTCTGCTGCTCTCCGTGACACAAGTCTCTTCCAGCCTTCCTC

Sequence 960

CCACGCGTCCGCGGACGCGTGGGGCCGGGACAAGTGGTCTTATCACGGAGGCTGGGGCCA
NGGCAGCCCTTCGGTTCGGGTGGGCCCATGGACCCAGTCCAACGCCGAGGGAATAGGAC
CATCCAAAAGCGGAACCTTCGCCTCAGAAAAAGGGTGCGGGACCCCTCCTCACCGTGCGG
TCACGCGTGGACCCTGCCAGCAGCCAGGCCATGGAGCTCTCTGATGTCACCTCATTGAG
GGTGTGGGTAATGAGGTGATGGTGGTGGCAGGTGTNGGTTGGTNGCTGATTCTAGCCTTG
GTCTAGCTTGGCTCTCTACCTACTTAGCAGACAGCGGTAGCAACCAGCTCCTGGGCGCT
NTTGTGTCAAGCAGGCGACACATCCGTCCCTNCACCTGGGGCATGTGGACCACCTGNTGGG
CAGGCCAAGGCNNCCCCGAAGCCAAGTGA

Sequence 961

NCCCCGCGTCCGGGAGGCTCCATGTTGTCCCTCAGCGAGTGGCAGCAGCTGCCTCAAGA

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GGAGCAGATGATGCCATGGAGAGCAGCAAGCCTGGTCCAGTGCAGGTTGTTTTGGTTTCAG
AAAGATCAACATTCCTTTGAGCTAGATGAGAAAGCCTTGGCCAGCATCCTCTTGCCAGGAC
CACATCCGAGATCTTGATGTGGTGGTGGTTTCAGTGGCTGGTGCCTTCCGAAAGGGCAAG
TCCTTCATTCTGGATTTTATGCTACGATACTTATATTCTCAGAAGGAAAGTGGCCATTCA
AATTGGTTGGGTGACCCAGAAGAACCCTAACAGGATTTTCTGGAGAGGGGGATCTGAT
CCAGAAACCACTGGGATTCAAATCTGGAGTGAAGTTTTCAGTGTGGAGAAGCCAGGTGGG
AAGAAGGTTTGCAGTTGTTTCTGATGGATACCCAGGGGGCAT

Sequence 962

GCCCCGCGTCCGCTTCTCCGAATATAGCAACGTCCAGCAGTGTCCACACTGTGGGAACCT
GGACTACCACTTCGTGAAGCCATTTTCTCCTTCAAAGTTCTCGAAGCTTATTGATGAAA
GCTTTGCTTTAGTAATAGCTATTTTATTGATATTATTACTTTATTACATATCTTTATAG
GGAAACATTCTGTGACATTAATTTCTTTCTAATTTAAAGGAGAGTTACTTTGTTGTATG
TGTGCCACTAAATAGGGGGCTGCCCTTGCCCTGTCTTGATTCCCGAGTGTTAATCTGTGG
TTTTGACCAGAGCCCAGATGGGTAATCCTGTGCATTTGGGTTGGGGGTTCACTCTTACCA
AGAATCTTTGATGCAGCTTTAAGATGGTGGGAGATGGGGGTTGAATTTAGGGAAGAAT
NTTGTGGGTTATAAACTAAGAGCTTGATAGGAGTTGGAAGGAACTCTTACTAAAATGT
TAACCTTCTAAAAACCTTCTTTANATCTTNCTTGGGCCTTTGGAAAA

Sequence 963

GTGTTTTGGGGATGCCTTTCCTTACCAGATTCTTCTAAAGCCCAGCTGCACCCACCCTTA
AGTGGGAGATAAGGCTTCTGCCCGCGGGCTCTGCGTTCTGCCACCCGGCCCCACGTTTGC
TGTGGACTAAACAGGAGCCACTGGACTAGAGTACACTTGACTCTCGGCTCTGCGGACCAA
AAATTCCAGGACTAAGGAATAGCAAGGTTAGGCTGAAACAGTCCACACAGGGCTTGCGGT
AAACGTCTTTTTCAGGAGCCACTCGCCAGTGCAGTAAGTCGTGTACTTAGTTGACTCGAG
CGCTCCAGGGAGACGCCCGACCCTACTCTGCGCCGCCCCGGGGCACCAGCTCTGCTTCCT
CCAGGTCCACTGAGGCAGGCACGCCAGCTCTGGGACAGGTCAGTAAACAAGCCACGAAC
CGCGCCAGGGATCAGAGAACCCANAGTCCCCGCCAGCTGCCGGCACAAGCCAATCGCAGC
GCANCCAGGCGGC

Sequence 964

GTCTAAGGGATCCAGGTCCTGTGTCTCAGGGACCTCTGATGGGATTGAATCCAAGAGGAA
TGCAGGGGCCTCCAGGCCNCGGGAGAACCAGGGTCCTGCTCCCCAAGGGATGATTATGG
GCCACCCGCTCAAGAGATGAGAGGACCTCACCTCCAGGTGGACTACTGGGACACGGCC
CTCAGGAAATGAGAGGTCTCAGGAGATCCGAGGCATGCAGGGGCCTCCACCCCAAGGAT
CAATGCTGGGACCTCCCCAGGAATTGCGAGGGCCTCCAGGCTCACAAGTCAGCAGGGGC
CGCCCCAGGGCTCTTTAGGACCTCACCCAGGGTGGCATGCAAGGACCCCCCGGACCTC
AGGGACAGCAGAACCCAGCAAGAGGGCCACATCCATCTCAAGGGCCAATACCATTCCAGC
AACAGAAAACGCCTCTGCTAGGTGATGGGCCCCGGGCCCTTCAACCAGGAAGGACAGA
GCACAGGCCCCCACC

Sequence 965

TGCGCATGCGCGGAGCGCGCGCGCGCGCGGTTGGGCCGTTGGCTGTTCCGGCCCTGGGA
TCCGCCGCCACTCCGCGATCAGACCGCTCTGTGCCGCGAGCCGCGCTGAGCACTCGGATT
CAAGCCGGCGCCAACGAGTCCGGGGGCATCGCCCGCAGCGGCCAAGCTCATGGCCGGCTG
AGCGGGACGCCGCTNCGCCTCAGCCACCGCCGCGCGCGCGNCTTCTTCTCCTCAGCCG
GCGGCGGCCCGGGCCAGCAACCATGGCTGAAGACTACTGGGACGGGCGCCTGCGGCGAA
CAGGAGGAGAAAGGGAGGTGCGCGGCGCTCATTCCGGGCCGCGCCCCAGGCGCGCGCGC
GCCGGCCCCGCGGCTCTGAGGTTGCTCGCGCGCCCC

Sequence 966

TGGAAAATNTTTTGGAAAAAATTACCCTTGGGACCTTGNTTTTNAANCCCNAGGTTCCCN
GTTNNGGCAAATAAANAATGNNNGACCCGGGATTTNNGGNTTNNAAACCGGGGGTTTTT
AATTTCCCNNNNCNNGGNCCTTTTTTTTTNCCNCCCCCNCAAGGGGGNTTTGGGAAAN
NAAANCCCCCCCCCTTTTTTTTTNNGGGGNGAAANTTCCCCGGGTNNNNGCCNTTTTTTTT
TTTTTAAA

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Sequence 967

GTCCGCGAGGCTCCGCACCAGCCGCGCTTCTGTCCGCCTGCAGGGCATTCCAGAAAGATG
AGGATATTTGCTGTCTTTATATTCATGACCTACTGGCATTGCTGAACGCATTTACTGTC
ACGGTTCCCAAGGACCTATATGTGGTAGAGTATGGTAGCAATATGACAATTGAATGCAAA
TTCCCAGTAGAAAAACAATTAGACCTGGCTGCACTAATTGTCTATTGGGAAATGGAGGAT
AAGAACATTATTCAATTTGTGCATGGAGAGGAAGACCTGAAGGTTGAGCATAGTAGCTAC
AGACAGAGGGCCCGGCTGTTGAAGGACCAGCTCTCCCTGGGAAATGCTGCACTTCAGATC
ACAGATGTGAAATTGCAGGATGCAGGGGGTGTACCGCTGCATGATCAGCTATGGGTGGTG
CCGACTACAAGCGAATTACTGTGAAAGTCAATGCCCATACAACAAAATCAACCAAAGA

Sequence 968

CGTCCGGGAACCTCAGCAACGGTTTCTTCATCCAGGACCCGATTGCTCTGGTGGAGAGGGG
GGGCTGCTCCTTCTCTCCAAGACTCGGGTGGTCCAGGAGCACGGCGGGCGGGCGGTGAT
CATCTCTGACAACGCAGTTGACAATGACAGCTTCTACGTGGAGATGATCCAGGACAGTAC
CCAGCGCACAGCTGACATCCCGCCCTCTTCTGCTCGGCCGAGACGGCTACATGATCCG
CCGCTCTCTGGAACAGCATGGGCTGCCATGGGCCATCATTTCCATCCCAGTCAATGTCAC
CAGCATCCCCACCTTTGAGCTGCTGCAACCGCCCTGGACCTTCTGGTAGAAGAGTTTGTC
CCACATTCAGCCATAAGTGACTCTGAGCTGGGAAGGGGAAACCCAGGAATTTTGCTACT
TGGAATTTGGAGATAGCATCTGGGGACAAGTGGAGCCAGGTAGAGGAAAAGGGTTTGGGG
CCGTTGCTAGGCTGAAAGGGAAGCCACACCACTGGCCTTCTTCCCCAGGG

Sequence 969

GATTGGAGGAGTCACATCCCCTCTTCAGCCGAGCACCCCTCCCTCCCATCCTCTAGCTC
TTCCCGCGGTGGTTCGCCTCCCTCCGACCCTGCTCTCCCCTCCTGGGCCCCGCGCAAAGCC
CCCTCTGTTCCAGCTCCCGGGCCTCGGCTGCCTCCCGCCCTCCCATCCCTTCTCTTCC
CAGGGCCTGGAGCGCTCCCTTACATTCTGAGATGCCCTTCTCGGGGCTGTCCCCCTTT
GCCTCCCCAGCATCCCATTTCTAGGCCTTTTTCAAGACCCTTCAGAGCGGCCCTTTCC
AGCTCCCTTTCTCGTTTCCATTTCCAATTTGCCTCTTTTGCCTCTTTGTTCACTTTGCT
TCCAAGCTCCCTCCCTCTTTCCCTTCGTCTTACCTGCTTTGATCTACGCAGCCCCAAA
CTCAAGCTCCCCGCTTTCAAGGTGGTGCGAGGTTGTTGGGGGGTGCGGAAGGGCCTGCCA
AGTCCATTTTTCGAGGGG

Sequence 970

GTCCGAGATCGCGAGCCGCGCCCTTTTTTTTTTTTTATAAGATTATTAGTATAAAAN
GGGGAGACGAGGTTAGGGCCCTGGGAAAGGTGGGAGATCAGCCAGAGACAGGTTTCCCAG
AACAGAATGTCTGGCCTTTGTGGTGAGGAGGACTGTGGTATGAGCCGAGAAGCGGGCC
AGGGGTAAACCCTCCTGTGCGTCTTCTTCAGCCTGGTCTGAGGGTGACCCTTTGATC
CTGGGTTCTCCAGGTAGGGCTGTGAGCTGTGAGTTGGATCCTTTTGGTGAATGGTCTCT
CTCATCTGGCCTGTCACTCAATGTGGAATAGAGTGAGTGAGTTCTATGGGTTCTAAGTCC
TGCTCTGGAACCATAAGTAAGTTATCCTCTCTGGGCTTCAGTTTTTTCATGGAAAGTTGCG
TTAAGAATCTAGTTAAGGCCAGGCATGGTGGCTCACCGCCTTGTAATCCAGCACTTTG
GGGAGGCCAAGGAAGGTGGATCATGANGTCAGGAGATCGAGACCATCCTNGCTAACATGA
TNAACCCGTGTCTTTACTTAAAAAATAC

Sequence 971

CCTGCCAGTGGTGAGCACCTTCGGCCTCCAGGTGCCTTTCTTCTTTCGCGGCCATNTG
CTTGGTGAGCCTGGTGTTCACAGGCTGCTGTGTGCCCCGAAACCAAAGGGACGTCCNTGGA
GCAAATCCGAGTCTTTTTCCGCACGGGGGAGAAGGTCTTCTTGCCTAGGTCAAGGTCC
CCGCCTGGAGGGGGCCAAACCCCA

Sequence 972

GCGTCCGCGACGCGTGGGCGGACGCGTGGGTGAGCCTCCACCTGGAAGAGAGCTANGGG
CCGGGCAGGCCGGGCAGCTGCCACCCCGCCCGGCCGACGCCCGCATGCCCGAAGTCC
CTGGCGCCACCCGGCCGCGGCCCTGCGTGTGACCCGCGGGTCGATACCTGGCAGCCCCA
GTGCTGGGGCGCCGCGGCCCTGCTCGCCAGGAGGAGCGAGGGCCCCACACTGAGTCT
CTTGAAGCCTCACGTTTCCCTGGGGGGGTGCTGCATCGTGGGTGTCCCTCACCCACCT

TABLE 1

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GGGGAACCTCTGTCTTCAGGTACCCCTTTTCAGGGGCCTGG

Sequence 973

CGTCCGGGACCCTGCTCATGGAGAACATCAGCAGCTGGCTGCTCCTTCGCTGACGCCCTG
GGCTACGTGAACCTGCCGCTCACCTTTTTCTGCCGGGCAGAGCTGGATAGTGAGCCCGAG
CGGGTGGCGTCCGTCTTGAAAAAGCTGAAGGAGGACTGNAACAACACTGAGAACAAAGAA
CGGAAGTCCTTNCAGAAGGAGCTTGTGATGGCCCTACTGAAGATGGACTGCCAGGGCCTG
GTGGTCAGACTCATCCAGGACTTTGTGCTCCTGACCACGGCTGTAGAGGTGGCCCAGCGC
TGGCGGGAGCTGGCTGAGAAGCTGGCCAAGGTCTNCAAGCAGCAGATGGACGCCTACNAG
TCTCCCCACCGGTGACAGGAACGGGGTTGTGGACAGCGAGGCCATGTGGAAGCCTGCGTA
TGACTTCTTAC

Sequence 974

TCACCACGCGTCCGCGAAGCGTGCACCGCTGCGCCCCGCCGGTGAGCGCGGGGAGCGCC
GCAAGCCCAACGCCGGGGGCGAGCCCCGCTCCGGTGCGCCGCCGNCGGAGGCCTCGCCGG
TGCAGAAAAAGGAGAAGAAGGACAAGGAGCCGGGAAAACGAGAAGGAGAAGAGTGCCCTA
GCCCCGGGAGCGCAGCCTCAAGAAGCGCCAGTCGCTGCCCGCCTCCCCACGTGCCCGCCTC
TCTGCCAGCACCGCCTCTGAGCTCAGCCCCAAATCCAAGGCCAGGCCATCCTCTCCCTCC
ACATCCTGGCACAGGCCTGCCTCCCCCTGCCCCAGCCAGGGCCAGGCCACACTCTGTCT
CCAAAGCCACCGTNCCTCCGAGGCACCACTGCATCCCCCAAGGGGCCGGGTTCGGAGGAA
GGAGGAGGCAAAGGAGAGCCCCAGCGCCGCANGGCCCGAGGACAA

Sequence 975

TCCGCAGAAACGGACTTTCTCATCATGCTTTCTATGGTGGGTATGAGGGGCCAGCTGAT
ACCAACCAACTGGCCTGTATCTATCTATCTGGATTTGACTTGAATTTTTAAATGTGTAT
CGTTTTAAAAAATAATGTTTGCAAATTTTGCACATAGGATCTTGCACTGTTCAATTTCA
GTGGGGTGAGTCTTCACACTAAAAACACAAGCAGAGCTCCTGGGAAAAGAGACTGGAAGT
GGTTCAGGATAAAGAGATCCATGGTGGGCAGGGCTCTTAGGTCACAGAGCTCTAGAAGCA
GCTGGACTTGAACCCACAATGGCTTGTGTAAATTCGTAAATTTTCATGGTTTCTAGGAAAA
GCTGCATTG

Sequence 976

GCGTCCGGAAGAACTGTGGAAGTGCAGTTGGCAGACAATTTTGTACAAATATTTAAAGG
AAAGATTTTGCCAATATGACCAGCTTGGTGGACCTGACTCTATCCAGGAATACAATAAGT
TTTATTACACCTCATGCTTTGCTGACCTACGAAATTTGAGGGCTTTGCATTTGAATAGC
AACAGATTGACTAAAATTACAAATGATATGTTCAAGTGGTCTTTCCAATCTTCATCATTTG
ATACTGAACAACAATCAGCTGACTTTAATTTCTCTACAGCGTTTGATGATGTCTTTGCC
CTTGAGGAGCTGGATCTGTCCTATAATAATCTAGAAACCATTCCTTGGGATGCTGTTGAG
AAGATGGTTAGCTTGACATCCCTTAGTTTGGATCACAATATGATTGATAACATTCCTAAG
GGGACCTTCTCCCATTTGCACAAGATGACTCGGTTAGATGTGACATCAAATAAATTGCAG
AAGCTACCACCTGACCCTCTCTTTGAGCGAGCTCAGGTACTAGCAACCTCAGGAATCATA
AGCCCATCTACTTTTGCATTAAGTTTT

Sequence 977

NCTCCAACAATTATGGCTCATCCTTCCTTTTACTCTGTCTCACCTCCTTTAGGTGAGTAC
TTCCTTAAATAAGTGCTAAACATACATANACGGAACTNGAAAGCTTTGGTTAGCCTTGCC
TTAGGTAATCAGCCTAGTTTACACTGTTTCCAGGGAGTAGTTGAATTACTATAAACCATT
AGCCACTTGTCTCTGCACCATTTATCACACCAGGACAGGGTCTCTCAACCTGGGCGCTAC
TGTCATTTGGGGCCAGGTGATTCTTCCTTGACAGGGGCTGTCCTGTACCTTGATAGGACAGC
AGCCCTGTCTAGAAAGGTATGTTTAGCAGCATTCCTGGCCTCTAGCTACCCGATGCCAGA
GCATGCTCCCCCGCAGTCATGACAATCAAAAAATGTCTCCAGACATTGTCAAATGCCTC
CTGGGGGGCAGTATTTCTCAAGCACTTTTAAAGCAAAGGTAAGTATTCATACAAGAAATTT
AGGGGGAAAAACATTGGTTAAATAAAAGCTATGTGTTCTATTCAACAATATTTTT

Sequence 978

CCCCGCGTCCGGGTCCCCGCGACTCCCCGAGCTGGAGAAAACGGCTCTTGCGATGGGGCGA
AGTCCGAGCTGCGGCGGGCGTTGGTCCGTGCAGGGAAGTGGAATCGTTAGGTTCTGTTCT

TABLE 1
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GGACCCGCGCCCATGGCCCAGGCGTCTCGCTCAGGTAGCCTGCCTCCACTCGTTATCG
TGCCCCCGCTGAGGGCGCAACCCGGGGGCACTGGGGAGGAGCAGTGGGAGAGAAGTCGAA
CGGNCGGNCTTCCGCTGGGCAGAGCTCAGCAGTACTTGGCAGCATGGGACCCAGCTTCCT
TCCTGCTCCTGATCCAAAAGGACTTACCTNCTCTGTTGCATGAGGCAGAAGCTTTGTATA
GCCTGGCCTCAGAGGAAAGCTTAGCTCTGGAAGTGGAGCAGCAGCTGGGCCTGGAGATCC
AGAANCTGACTGCACAGATCCAGC

Sequence 979

AGGCTGNTACGAAGCGAGCTTGGGAGGAGCAGCTGGCCTGCGGGGAGAGGAGCATCCCCG
TCTACCANGTCCCAAGCGGTGTGGCCCGCGGGTCTGNNCAAAGGAGAAGGCNCCGANAG
CGGCTCCNCGCGGGGCTGNTACCCACCAGCATCCTCAAAGCACTGAACGCCCGGCCCA
GGTGAAGAAAGAACCGAAAAAGAAGAAACAACAGTTGTCTGTTTGCAACAAGCTTTGCTA
TGCACTTGGGGGAGCCCCCTACCAGGTGACGGGCTGTGCCCTGGGTTTCTTCTTCANAT
CTACCTATTGGATGTGGCTCAGGTGGGCCCTTTCTCTGCCTTCATCATCCTGNTTGTGGG
CCGANCTGGGATGCCATCACAGACCCCTGGTGGGCCTCTGCATCAGCAAATNCCC

Sequence 980

ACCCCGCGTCCGGAAGAAGAGTGGCCNGTTCCAGGGGTAGCTCCAAAAGAGACTGCAG
AGCTGTCCGAGACCTGACAAGGGAGGCCCAAGGCAACAGTTCCGAGGAGTGGAGGCAG
CAGAGCAGAGGCCTGTGGAAGATGGCGAGAGGGGCATGAAGCCAACAGAAGGGTGGAAAT
GGACCTGAACCTCCGGAAGGCTCGAGAATGGACACCCAGGGACATAGAGGCTCAAACCTC
AGAAACCAGAACCTCCAGAGTCAGCAGAGAAGCTTCTGGAATCTCCCGGTGTGGAGGCTG
GAGAAGGGGAGGCTGAGAAGGAGGAGGCGGGGCTCAGGGCAGGCCTCTGAGAGCCCTGC
AGAACTGCTGCTCTGTGCCCTCCCCCTCCCACCAGAGGACGCTGGGACTGGAGGCCTGA
GACAGCAGGAAGAGGAAGCAGTGGAGCTTCAAGCCCCCACCACCAGCCCTCTGTCTCC
CCCACCCAGCCCCAACTGCCCCCAACCTTCTGG

Sequence 981

GCCCCGCGTCCGAAAAGAATGGGTGAACCAATCGGCCTTTGTGAATTTATTCACTGCCTT
CTCTGTACCAAGCACTGGGTAAGGCACCTTTGTGGAGCATTAGACAGTAACCCTCAAGGA
GCTAGAGAACCAGGATGGGAGACATGAGCGGTAATTAACCTCACTTGTTCCCCAGAGTTTCT
ATTTGTTTTGATTTTCTTTTCTGTGACTTATTTCTATTTTCTTCTCCATGTAATT
TTCACTATGGCCCAACTAATATAAACACCTGGAAATTACAAGGAAAAAAATTTCTCCTC
TAATAACTTTCCAAATTTGTGGAATATTTATTTGTAATAGCAGTTATCAGTTATGCTTAT
ATAGCATTAATAAATTTCTCCTCTTTGACTACACACACAACCACAGTGTGGTTCTAATCAT
GGAGATATCAGTAATTTTGTAGTAAGTGAATTTTGAGGACATTTCTNTGTTTAGCATGTAT
GCAAACCTGATATGTAATCTGAGGTTCCAAAGTCAATTTTTTCTTTTT

Sequence 982

TNGGGAGTCGACCCCGCGTCCGGTTTTTGTGAGGCAGTGAGACCTAAGGTAACCTTTATC
AAAAGGATGGAGTTGGGAAAAGGAAAACCTACTCAGGACTGGACTGAATGCGTTGCATCAA
GCAGTGCATCCGATCCATGGCCTTGCTGGACCGATGGGAATCAAGTTGTCCTAACTGAT
TTGCGGCTTCACAGTGGAGAGGTCAAGTTTGGGACTCCAAAGTCATTGGACAGTTTGAA
TGTGTCTGTGGGTTGTCTGGGCCCCACCTGTTGCAGATGATACACCTGTTCTACTCGCT
GTCCAGCATGAGAAGCATGTCACTGTGTGGCAGCTGTGTCCCAGCCCTATGGAGTCAAGC
AAATGGCTTGACGTCTCAGACTTGTGAGATTAGGAGGGATCACTACCTATCCTTCCCCAG
GGCTGTGTGGCACCCAAA

Sequence 983

GTGTCGACCCCGCGTCCGCGCCCTGCCTGCAGTTGAGATTCAGATGCCTTCTGACAGAGT
TCAGCCTCTTGAGAGTCTTGGGGATTGTTGGCACCTAAACAGAATCAGNGACCCGGGTG
CTTTGTGGCCAGCAGCACAGAATCAAACCCGCATCCCAGCATTGGGCCACCCATCTGAGG
GAGGCCAAAATCATCACAGATGCTGCTGTGCTGCAGACAGATACATGCTAGTCCAGAGAG
CCGCCCCGTGAGATGGCTGTGAGAACCATGTGTCTAAGGCGTAAGATAAGGATGGAAGGCT
GTCCAAGTTATTTGGAAGGCCTCGGCAGCTTGGGATTAGCTTGGGAGCGCAGCGCTGCAA
AGTGGAATAATGAAAAGACCACACAGGCCCAAGCAGTCCAGAAACTGGGCAAAAATATT

TABLE 1

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CTGCAGTGGGGATTATTTTTT

Sequence 984

CACGCGTCCGGAGTACGGAGTTGTTCTTTACTGGCTGAAAGATATATTCGAATTGTAAA
GATGCTTTTTCTCATGCATTGAAATTATACATTATTTGTAGGGAATTGCATGCTTTTTT
TTTTTTCTCCCGAGACAGGGTCTTGCTCTGGCGCCCAGGCTGGAGTACAGNNGCATGAT
CTTGGCTCACTTCAGCCTTGACTTGGGCTCAAGTGATCCTCCTACCTGAGCCTTCTGAGT
AACTGGGACTACAGGTGTGCACTCCTCGCCTGGCTAATTTTTATTTTTGTACAGGCAG
GATCTTGCCACCTTGCCAGGCTGGTCTTGAACCTCTGAGCTCATGCCATCTGCCTGCCT
TAGTCTCCCAAATGCTGGGATTACAGGAGTGAGCCACCATGCCCGGCTGGCAGTTGCAT
GGAAGAGAACACCTNTTATGGCTTACCCTCTAGAATTTCTAATTTATGNGNCTGTTGA
AATTTTTGGTTTTTTACCT

Sequence 985

GTGACACACGCTCCGCTCGGCTTCCTGCTGATGGTCAGGGTTTTGGCAACTCCCCGGTG
TGAGAGGGGTAGGGAGTGCTCCCGCGCGGACGGGGCCGAGTTCACCAGCCGCCGGGGCA
GTAGTCGAAGGCCCGCGCGGCATGCTCTGGGTGCCGCGGTGCGGGCAGTGAACGCGCGC
CGGGCGGGATGGGCCGCGCGCGGGCGCCAGAGCTGTACCGGGCTCCGTTCCCGTTGTACG
CGCTTCAGGTGACCCCCAGCACTGGGCTGCTCATCGCTGCGGGCGGAGGAGGCGCCGCCA
AGACAGGCATAAAGAATGGCGTGCACTTTCTGCAGCTAGAGCTGATTAATGGGCGCTTGA
GTGCCTCCTTGCTGCACTCCCATGACACAGAGACACGGGCCACCATGAACCTGGCACTGG
CTGGTGACATCCTTGCTGCAGGGGCAGGATGCCCACTGTCAGCTTTCTGCGCTTCAGGC
ACATTAACAGCA

Sequence 986

CGCCACGCGTCCGCGTACGCGTGGGCGCGACCGAGCGTGCGGACTGGCCTCCCAAGCGTG
GGGCGACAAGCTGCCGAGCTGCAATGGGCCGCGGCTGGGGATTCTTGTTGGCCTCCTG
GGCGCCGTGTGGCTGCTCAGCTCGGGCCACGGAGAGGAGCAGCCCCCGGAGACAGCGGCA
CAGAGGTGCTTCTGCCAGGTAGTGTTACTTGGATGATTGTACCTGTGATGTTGAAACC
ATTGATAGATTTAATAACTACAGGCTTTCCCAAGACTACAAAACTTCTGAAAGTGAC
TACTTTAGGTATTACAAGGTAAACCTGAAGAGGCCCGTGTCCTTTCTGGAATGACATCAG
CCAGTGTGGAAGAAGGGACT

Sequence 987

GGTCGCCCCGCGTCCGTAGCAGTTACATCTACGAGGCTATTATGGATTGGAGGATGAGAA
GGGAACTGCATGTACCTCAACAAGGCGTCGGTCAACACCGCGAAGTTTGGCAGGCTTGAC
AAGTGGAGTTTTTGAATCTATAATGGTTCAAGTTTTGAGACAGGAAGAAGCTGAGAGC
AAAAGAAGAAAAAGGCTTCGGGAGCAGGAAAGAAAAGAAGCAGAAGAAGCTAGTCAAAA
GGAAATAGAAGAATGGGAAAGAAAACCTCTAGCTCAAGCAGCTCCAACCTTGATGGAGAC
CATGTGGGAAATCCAGCTATTGGGCATTTCTTTGTTTAGCTCAGCAAATTTCTAAATTT
GCCAGAAATAGTCTTTTACCGAAGTGAACCGTTGTCTTCTGATGCCTCAGTGTAATGCT
TTTCTATCGAAAATAATGACTTCTTATTTAAGTCCTCCCATCGCAGA

Sequence 988

NCCCCGCGTCCGAGTCCCCTGTCTGTGGCACCAGACACTCCCGACTGTGCGCTGACTCTC
CCCGCCCAGCCAGCAGCCTTTTCCAGAGAGGCTGTGGTCCATAGCCTCTGTTCTGTTTTCA
CTGCAGGACCAGGCACGAAAGTTAAACAAAATGAAGATTTTTCTGAATCTCATAAAAC
AGTGTGTTGTTGTGGATCACTGCCCTTATATGGCAGAATCTTGCAAGGCAGCATGTGAGTT
TGATATGCTGGTGAAGAATAGAACCCAAGGAATCATTCTTTGGCCCCCATATCTAAATC
ATTGTGGACTTGCTCAGTAGAATCTTCCATGGAATATTGTAGAATAATGTATGATATATT
TCCTTTCAAAAAGCTGGTGAATTTTATTGTGAGTGACTCTGGAGCACATGTTTTAAATTC
TTGGACTCAAGAAGACCAAAATTTACAGGAGCTAATGGCAGCATTAGCCCGCTGTTGGGC
CTCCTAATCCTCGGGC

Sequence 989

GTGCGCCACGCGTCCGTTCTGTTGTCTGATGGACCTGCTTGCAAAAGGCCAGCTCTGTTGC
ATTCCCAATTTTTGACACCACCTCAAACACCAACGCCCGGGGAGAGCATGGAAGATGTTG

TABLE 1
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ATCTCAATGAACCCAAACAGGAGAGCAGTGCTGATCTGCTTCAGAACATTATCAACATTA
AGAATGAATGCAGCCCCGTTTCCCTGAACACAGTTCAAGTTAGCTGGCTGAACCCCCGTGG
TGGTCCCTCAGAGCTCCCCCGCAGAGCAGTGTCAGGACTTCCATGGAGGGCAGGTCTTTT
CTCCACCTCAGAAATGCCAACCATTTCCAAGTCAGGGGCTCCCAACAAATGATAGACCAGG
CTTCCCTGTACCAGTATTCTCCACAGAACCAGCATGTANAGCAGCAGCCACACTACACCC
ACAAACCAACTCTGGAATACAGTCCTTTTCCCATACCTCCCCAGTCCCCCGCTT
Sequence 990
GTCCGGCTGGGACCTCCTCCTGTTGGGGTCCCCATGAACCCTTCCCAGTTCAACCTTTCA
GGACGGAACCCCCAGAAACAGGCCCGGACCTCCTNCTCTACCACCCCCAATCGAAAGACA
ATGCCTGTGGAAGACAAGTCAGACCCCCCAGAGGGGTCTGAGGAAGCCGCAGAGCCCCGG
ATGGACACACCAGAAGACCAAGATTTACCGCCCTGCCAGAGGACATCGCCAAGGAAAAA
CGCACTCCAGCACCTGAGCCTGAGCCTTGAGGCGTCCGAGCTGCCAGCAAAGAGATTG
AGGAGCTCAGAAGAGCCACAGAGAAGGAACCTCCAGGGCAGTTACAGGTGAAGGCCAG
CCGCAGGCC
Sequence 991
NCGCGTCCGCTTAAATGACTCGTTATCATTTTGCAATGAATGGAAAATCATTCTCAGTGA
TACTGGAGCATTTTCAAGACCTTGTTCTTAAGTTGATGTTGCATGGCACCCTGTTTGCCC
GTATGGCACCTGATCAGAAGACACAGTTGATAGAAGCATTGCAAAATGTTGATTATTTTG
TTGGGATGTGTGGTGATGGCGCAAATGATTGTGGTGCTTTGAAGAGGGCACACGGAGGCA
TTTCCTTATCGGAGCTCGAAGCTTCAGTGGCATCTCCCTTTACCTCTAAGACTCCTAGTA
TTTCCTGTGTGCCAAACCTTATCAGGGAAGGCCGTGCTGCTTTAATAACTTCCTTCTGGT
GTGTTTAAATTATGGCATTGTACAAGCATTATCCAGTCTTCCAAGTGTTACTCTGCTGT
ATTCTATCTTTAAGTAACCTAGGAGACTTTCAGTCTTCTTAATTTGATCTGGCAATCT
TTTGGGTAAGTGCGTATTTANAAT
Sequence 992
TTTTCACTGCAGGACCAGGCACGAAAGTTAAAAACAAAATTGAAGATTTTTTCTGAATCTC
ATAAAACAGTGTTTGTGTGGATCACTGCCCTTATATGGCAGAATCTTGCAGGCAGCATG
TCGAGTTTGATATGCTGGTGAAGAATAGAACCAAGGAATCATTCTTTGGCCCCCATAT
CTAAATCATTGTGGACTTGCTCAGTAGAATCTTCCATGGAATATTGTAGAATAATGTATG
ATATATTTCTTTCAAAAAGCTGGTGAATTTTATTGTGAGTGAATCTGGAGCACATGTTT
TAAATTCTTGGACTCAAGAAGACCAAAATTTACAGGGAGCTAATGGCAGCATTAGCCGCT
GTTGGGCCTCCTAATCC
Sequence 993
CGCGTCCGGGCAGGAGCACCCTCAAGGAGCTACACCCCTTGATCGGCTTGACCGCCTT
ACCTCAGGGGTGCTTATGTTTGCCAAGACAGCTGCAGTCTNTGAGAGAATTCACGAGCAG
GTTCCGGGACCGGCAGCTGGAGAAGGAGTACGTGTGCCGGGTGGAAGGGGAGTTCCCCACT
GAGGAAGTGACCTGTAAAGAACCCATCTTAGTGCTTACAAAGTAGGGGTGTGCCGT
GTAGATCCCCGGGGCAAGCCCTGTGAGACAGTGTTCCAGAGGCTAAGCTACAATGGCCAG
TCCAGTGTGGTACGGTGCCGGCCACTCACAGGCCGCACACACCAGATTGAGTCCACCTT
CAGTTCTTGGGCCATCCATTCTCAACGACCCCATCTACAACCTCAGTTGCCTTGGGGTCC
TTCTCGAGGGCCGGGCGGCTACATTCCCAAGACAAACGAGGAGTTGCTACGGGACCTGG
Sequence 994
ACGCGTCCGCGACCGCTGGGCATGCGGGTGTTGGCGCGGTATCCCCGCCCTGCCAGCAT
CTGCCCCACGTTTCTTCAAGGCTAAACTACCGGGATCCCGGGCTTCTTCTAAAGTAAAC
TCGCTCCGGAAGGCCAACAGTCCAGCGGCCAGACGGGCACCTGGGAACGCGGGCCTAAC
GCGTACTGGAGACGGAGTGGCGCCCGGCACTGCGCGCCTCCTCCCCGCCGGGAGACTGCG
TGCTAAGCTCAGCAAAGCCCCGCTGTGGAGACGGAGCCATGTCGCCCATTAACCTAATGAA
ACTGAGAAGGGAGACTCAGTCTCTCTTAGCCCCGAGCGCAAGCTCTGCTGGACTTGGC
ATCGTCCGCCCTCCACGATCCACACTCCGGGTTTTCCCATTCAGCTCGGCTGCAAC
CGAGAGACAGACGGAAGAAAC
Sequence 995

TABLE 1
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TCCTCCTGGCCCTGTTAATGTCGGGGCCNGGCCGGGGGAGGATGGCGCCCTAGAACCCGG
CCTTGCTGGGGTAGGGGCGGGAGGGGACGGGGTGGGGACCGGCCATGTCGGAGGTGACCC
GGAGTCTGCTGCAGCGCTGGGGCGCCAGTTNTAGGAGAGGCGCCNACTTCGACTCTTGG
GGCCAGCTGGTGGAGGCGATAGACGAGTATCAGATATTAGCAAGACATCTACAAAAGGAG
GCCCAAGCTCAACACAATAATTCTGAATTCACAGAAGAACAAAAGAAAACCATAGGCAAA
ATTGCAACATGCTTGGAAT

Sequence 996

CGCGTCCGGCCTGAGCCGGCGGGTCCCCTGTGTCCGCCGCGGCTGTCGTCCCCGCTCCC
GCCACTTCCGGGGTGCAGTCCCGGGCATGGAGCCGCGACCGTGAGGCGCCGCTGGACCC
GGGACGACCTGCCAGTCCGGCCGCCGCCACGTCCCGGTCTGTGTCCACGCCTGCAG
CTGGAATGGAGGCTCTCTGGACCCTTTAGAAGGCACCCCTGCCCTCCTGAGGTCAGCTGA
GCGGTTAATGCGGAAGGTTAAGAACTGCGCCTGGACAAGGAGAACACCGGAAGTTGGAG
AAGCTTCTCGCTGAATTCGAGGGGGCTGAGAGGATGGCCACCACCGGGACCCCAACGGC
CGACCGAGGCGACGCGAGCCGCCACAGATGACCCGGCCGCCCGCTTTCAGGTGCAGAAGCA
CTCGTGGGACGGGCTCCGGAGCATCATCCACGGCAGCCGCAAGTACTCGGGCCTTATTGT
CAACAAGGCGCCCCACGACTTTCAAG

Sequence 997

GTCCGGCCAGGAGCCAGGCCGAGCGGGAGCTGACCANGGCTTGACTCGGGTACAGAACGA
GGCACCAGTCCCCTTGCGAACCGAAGGGCCTCGCAGTGGATGGAGGAGGCCAGCCCTGA
GGTCAACGCCAACCAGGCTAGCCTGGCACGGGGCCTACAGGGTGGGTAGGCGGGCGTGCC
GCAGCCGTCCAGGGCCTTCCCTCAGGTCCCGGGCCGAGGGGCCTACGCTGCGGCCCGGCA
ACAAGGCCCGACTCGGGCCCTCGGGACCAGAGCCCCACCCGATCGGAAGGCGGATCCCTT
ACCAGGGCCATAGGCCAGTGAATGGGCGGGCCCTTNGGGCCTCCATTGCGGGCCCGGA
CTANGGAACNAGGCCCGNNGAGGCCCTTGGCCTACCAGACCCTTTNTNANGCCGACA
GCCGNCANGGAAAGAT

Sequence 998

CGTCCGGCCAGAGCCCGCAGCACGCCGCCGCCGAGCCTAGGTACCTCCAGCATCTAG
CACAACGTCTGCAATGGAACAGGCGAGCTGTGAATATTTGTGGAATGCATGGGTGGACTA
AAGACCTATCACCTCACTCTAGAATGCCAGCATGTTGGAGCATGAGGACCAAGAACCAT
GGTGTTCCTCACTCATCAGAGCCGTATCATTTTGATGCATGCGCAAGAAAGAAAATTC
AATCATCAGACTGAAGCAATCAAATCCAAATGGTGCTGTAACTGAACCACACATAGAC
ATGCCATTCTTCTAAGGACCCTTAAGATCCACCCAGGAGGAGCGCTAGCTGCTGTTCCC
CATTGATGCCCTTTTCGGCCCCGGAAGTAGCCGGAAGATTGCCCCGCCAAAATCCCC
TAACCAGCAAGTTAGGTGTGGCATCTTCCACAAGCANGGAGCCGTTGTAGGAAAAGGNG
GTCTTGGGGAAGGTTTTTCG

Sequence 999

CCCGCGCCGGCAGTTTCNATGGTGTGTACTAATTTGAGAAAATGAATGTGTATACATACA
AGAGTAAGTCAGATTGTTAGACTCATCCCTCAGTATTCATATGTTTTGTGACTGATTTT
ACAGTTCTCTCTACCTTTCTCATTTACAAAAAAGAAAAGAAAATTTGATTCAGC
AATTCCTAAAAGTATTGTATTAGTACATCTTTGGAACACCAAGTTTCTGTTATCAACT
TCAAATAATAGTCAAGTTTTATGTATGATCTAAAGGGAAAAACAAGTTTTTTTCAATCC
TGTGATAATTTTTCTTTTGAATGAGGTGTTGCAAGAAATGGAATAAATAAACCCT
CTGTAACAATTTTCTGCTGCTTCTTTGTTTCTCTGTTTTTGTAAATGGGTACCTTA
TATTTGTACCTTTACATATTGAATTCATGAGGAGAGGTTATGCACAGCCTAGTTATTGA
CATTCCAGGGGGTTTTAAAAAA

Sequence 1000

CCCGCGTCCGGCGGTGGCGGTGGTGGCGGTGGCGGCGGTGGCGGCGGCGGCGAAGGGGGC
GGAGAGGAAGGAGCGCGGGCGGGACCGGGCCGGGACAGCGCGTACTTTGGGCTCCGGGAGT
CGCTCCGCGCCCGCGGTTGTAGCAGCTGCCGCTGCAGCCATAGCAGCAGGTCAGTCATTG
GCACCATGAACTGGAATAAAGGTGGTCCTGGCACTAAGCGAGGATTTGGCTTTGGAGGTT
TTGCCATCAGTGCTGGGAAAAAGGAGGAACCCAACTCCACAGCAGTCCACAGTGCCT

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[illegible]

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CCCCGGGACCCCTTCGG

Sequence 1007

TCGCCACGCGTCCGGAAAAATTTATGCCTTTTTATTCATAACCCAGCTGTGGACCACTGC
CTGAAAGGTTTGTACAGATGCATGCCACAGTAGATGTCCACATAATAAAATTCATAGTTA
CCAATGCAGTTTTGATATATCATTGGATTCTGTCTTTGAGTTGTAGGTTATTTCTTAGCT
GCATGTTTTAACTGAATTTGCATAGAGTTGTATGTTAATGTTTCAGTTAAGAGAAAAAC
TTAAGATACATGAGTCATTACATAATGGGTATGAAATCTTTATAATCACCCCTCCACCCT
CTATGGTGTCAGTACACATCACGTGTCATAGATACTTAAATGTAAATGTAAACACTTTT
CCTTCCTGCTGAGGATGTTTAGAGCCTAGTGCCAGACCCATTCAATTCCTTTTGATT

Sequence 1008

GCGTCCGGGCGNGCGGAGTTTTGTCCATAACGTGGGCAACCGCGCAGCTGGAGGATGGCCT
CACTCGGGCCTGCCGCAGCTGGGGAGCAGGCGTCGGGGGCTGAGGCGGAGCCGGGCCCGG
CGGGGCCGCGCCGCCGCCCTCACCGTCCTCTCTGGGGCCCTGCTCCCCCTGCAGCGGG
AACCTCTCTACAACCTGGCAGGCGACCAAGGCGTCGCTGAAGGAGCGCTTCGCCTTCTCT
TCAACTCGGACTGCTGCGATGTGCGCTTCGTAAGTGGGCAAGTTGGCGNGCCGCCGCCCG
CTGGGGGCCCGCAGCGCATCCCCGCCACCGCTTCGTGCTGGCGGCCGCGAGACGCCGTC
TTTG

Sequence 1009

GCNCCCCGCGTCCGTTAGAGCTCAGGAAGTTATTAGGTGCAGCCTCTGGAGCCATACTCA
CGCTGCAGTGCATAATGGGAAAATTAGGAGCATTAAAGAAATTTAGTAGTGTGTTGTA
AGGAAAATAAGCTACTTACTGAGATCTGTTTCTTCTATTGCATGTTTGCTTTTGAGGGAC
AGCTTCTGTCAAAAGTGAAATCATCACCAAGAACTGGGCCTGTTAGGAAGAATAGGGTTTT
ATTTACTTTTTATGTCAATTAACCTCAACAAAAAGGCCACGCTGGCTGCTGTCATGCCAT
CTGGGTATGCATTAACATTAATGATGATCAGCCTTGAGGTTCTATTTATCTTGATTTGG
CTTTATAAAGTTTTGTCAGAATGGTGGTGGAGGNCCAGAAGTGCTAAGGAGAAAGAAGCTA
TGGGCCAAGTTAAAGAATTTGAATGCAAAGGCCAGGNATGGGAGTTTTTCATAA

Sequence 1010

CGCCNCGCGTCCGGTGAGCCCCAGCAAGGAGATCAAGATCGTGTCTGCCTGAGGAAGCAG
AGCCATGACAATCGGAAATCTACCAGCTCAATGTCCTGCATGTAGACTACCGGACCGTGA
GCAATCTGATTCTGACGGGCCCACGGACGATTGTCATGGAAGTCATGGAGGAGTTAGAGT
GCTGAGCTCCTGGGCCTCCAGCCCTCCAGTGGCCTGTGGGTGAGGGAAGCCAGAATGAC
ACAAAGCAATGCAAAGACAAGATTGCCATGCAATGGATGGTTTTGGACATACGAGTCTT
CTCCGCACATACATGTCTAAAGTTGAGTTTTATACACTGGAATGTGGAAGAACCCGGGTA
TCATATCTTTTTTAAAAAATGTCCAGTGTAGAAAACATTTGGGAAAC

Sequence 1011

ATTTTTCTAACATGGGTTTGAACGCTTATAACCAGTTTTATAAACCCCTTGAACACTGCA
GTGAGTTATCAAAGCCACTGCCTGCAAAGTGGATGATTTAAGATTTTACACGCATGAAAA
TGAGTGTGCCATCTCCTGACCAGTGCCTTTTGACTTAGGTACCCAGATGCCACTTGTCAG
CAGCAGGATACTTTTTACAACACGAAAGCATAATTATTTAGAAGAAGAGAGTAGAAGGG
CAGAATAGAATTCAACTTACAGAAGCACCGGAGTAGTGTTGTGGTTGGCTGTTATCTGTC
CCCTGGGAGGAGGGACTGTTTTGCTCCCTTGTTTTNGATGTTAAACAGTAGCTTAAAGG
CTTTCCCCCCCATACCACTTACAGNCAAATGACAAAGAACCGGTGGNGGTTTTCAACAG
ATTCTACAAACATGCATTTTTCCCTTCCCACTAAATGGG

Sequence 1012

GTCACCNCGCTCCGCTCGTCCTCCGTGGGCACTGATGTCACCGAGGGCCCTGCTCACCC
AGCCCCCACACTAGGCTGTTCCATGCAAATGAGGAGGAGGAGCCAGAGAAGAAGGAGGT
ATCGGAGCTGCGCTCTGAGCTATGGGAGAAGGAAATGAAGCTTACAGACATCCGCTTGG
GGCCCTCAACTCTGCCACCAACTGGATCAGCTTCGGGAGACCATGCACAACATGCAGTT
GGAGGTGGACCTGCTGAAAGCAGAGAATGACCGACTGAAGGTAGCCCCAGGCCCTCATC
AGGCTCCACTCCAGGGCAGGTCCCTGGATCATCTGCATTATCTTCCCCACGCCGCTCCCT
AGGCCTGGCACTCACCCATTCTTCGGCCCCAGTCTTGACAGACACAGACCTGTCACCCAT

TABLE 1
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TGGATGGCATCAGTACTTTGTGGGTCCAAAGAGGGGAAGTGACCTTCGGGTGGGTGGTGA
AGG

Sequence 1013

CGCGTCCGAAGAAAATGGGATCCATGAAGAACAAGACCAAGAGCCACAGGATCTCTTTGC
AGGGGATGGTATGAATGCATATGTAGCCTACAAAGTTACAACACAGACAAGCTTACCATT
GTCTCAGAAGCAAAACAGTTTTGCAGGTAAAAAAGNAAAGATNTTAGTGACTTTCTTGGGT
CTTTATTGAGAAGCTTTCCNGAGNAAGCCACTCTCAGAAATTGGCTTCATATGTTCCCTC
CCGCCCCCGGAGTAAGNAGCCCTCATAGNGGGATTGACATAAAAGTTGAAAAGNTTGNGG
AACGGAAAGAATTCNTTCTTCTGGCAGNAATTTTCTTGAAAAAACCCNGAGGGGCCCG
CTTTAGAAAAAGGGTACCCTTTCAGGAGGGATTGTTAAAATTCANTCCTACCCCATGGT
TTAACAAGGGACTCCTTGACNGTTCAGTAAGTAGGTTTCTTGNNAAAAAAGGAAAGGAA
GCTGCCACCGTGCCCGTNGGGGATACCCNAAGACAATTGANGTTGGGTGGCTTGNTC
CTTNTCTCAAAGGAATGTTTTCAAANCAAAAAGCCCAAGATTGCCNGTCCANGCC
AAAAAAT

Sequence 1014

GTGCCCCGCGTCCGCGGNCGCGTGGGGTGCTNGTCACCAGACTGCACCCTTGCCAGCAG
CTTCGCAGCTCTCGAAGTAANTTATCGCANGATGGCCGGCGCCTCACCTAGGAGAACCAG
GAAGGCAGGCCNCGCTAGAACGACGGNATTGAATTTTACTATTGNCAAAACAATCACATT
CAAATTCATTCCACTTAAACCTGAAAACATTGGACCACACAA

Sequence 1015

AGTCGACCACGCGTCCGGGCGGAGGGAGCGTGAAGTGGCTGCGCAGGGCGCTAGGAGGCA
TTGTCCGCGCTCAGGCCCTTTTGTGAGAAGCAGAGCCCTGGGGGCTGGCGGCAGGACA
CCTGTGTCTGCATGCTGAAGAAGATGGGTGAGGUCGTGGCCAGAGTAGCAAGGAAGGTCA
ACGAGACGGTGGAGAGCGGCTCTGACACTCTGGACCTGGCCGAGTGCAAGCTGGTCTCCT
TTCCCATTTGGCATCTACAAGGTCCTGCGGAATGTCTCTGGCCAGATCCACCTCATCACCC
TGGCTAACAACGAGCTTAAGTCCCTCACCAGCAAGTTCATGACCACATTCAGTCAGCTCC
GAGAGCTCCACCTGGAGGGGAACCTTCTACACCGCCTCCCCAGCGAGGGTCAGTGCCCTG
CAGCACCTCAAGGCCATTGACCTGTCCCGGAAACCAAGTTCCAAGGACTTTTCT

Sequence 1016

CGCGTCCGCTTTTCAAGTGAAGAAAAGGGAATTACACATNGAATCGACACATCAGTAATACC
GATACAGTGAATGGGCCTCTAATAAGAATTTNAGCGNGTTTTCTGATGTGCCATTTTTT
TTGTCTTTTTTAAAAATATACCATANTTATAAAANTGGNAAATANNTTTTTGNACACCAT
TTAAATTGACCCCTTANAGNACNCTTGCCGTNATGNTGAAANGCTAGACCTATNGAAGC
TGNCCTTGANGATATNTGTTTTTAAAAAATTTTTTACAACNTACTTGTGGAAAATA
TAATATGCACTATAAAATATGATCNTATATCCTATTATCTATNATCTAAAAACACTTCCT
TGGACNCATTTANACGTAAAATTTAAAAATGGGTCTTTAANGAAGANTAATGGGGAGGCC
CTTTTTTAAACCTATGGNNCAATCTTTTTATGNCAAAGGGGNGGACCATTTTATTA

Sequence 1017

GCGTNCGCTGCGCCCGTGGGACCGGTGAAGTTCTGGCGACCCGGTACAGAGGGGCCAGGT
GTAAGCATCTCTGAAGAGAGACAAAGTCTGGCTGAAAACCTCTGGGACAACGGTTGTTTAC
AACCTTATGCTGCCCTTCCATAGAGCAGAGGCAGAAGCTGCCGGTATTCAAGCTT
AGGAATCATATTTTATACTTGATAGAAAATTATCAGACAGTGGTGATTGTTGGTGAACA
GGATGTGGGAAGAGCACACAGATTCCCTCAGTACCTTGAGAGAAGCCGGCTGGACAGCTGAA
GGAAGAGTGGTAGGAGTGACCCAGCCTCGAAGAGTGGCTGCTGTTACACATGATCTTTCT
TNCCAAAGGTTGCAGGGAGAGTAGCTGAAGAAAGGGGTGCAGTGCTGGGCCACCCAGGTGG
GCTACTGCATCCGCT

Sequence 1018

AGTCGCCCCGCGTCCGGTGGGAATCTTTCNACTTCTTGATCCATCTGGGAGAGAAGACGT
ACCATTATGTGCCCGAATTCGAAAAGTGTCATAGCAGCTACCATCATCTATGCCTATG
CCTGGCTGGTTCCTCTTGCACTCTGGGGTTTCTCATGTGGAGAAACAGCAAAGTTATGA

TABLE 1
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ACATCGTCTCCTATTCAATTTCTGGAGATTGTGTGTGTCTATGGATATTCCCTCTTCATTT
ATATCCCCACCGCAATACTGTGGATTATCCCCAGAAAGCTGTTGCTTGGATTCTAGT
Sequence 1019
GGAGTCGCCACGCGTCCGGTGGCACGATCTTGGCCCACTGCAAGCTCCGCCTCCCAGGTT
CACGCTATTCTCCCGCCTCGGGAGCTGGGACAACAGGTGCCCGCCACCACGCTCGGCTAA
TTTTTTGTATTTTAGTACAGACGGAGTTTCACCGTGTGGCCAGGATGGTCTCGATCTC
CTGACCTCGTGATGCACCTGCCTTGACCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCA
CTGCGCCCGGCCAATAATTTTTTTAGTTTAAAGTTCATTTTTGTCCCGCTGATGAAAGTT
ACAGCAGCTGCCCAGTGCCTCTGTCCACACCCACCTCCCTGGTGTACTTGGCCCTACAG
CAGCAGCCCAGATCCTCCCTGGATTAATAATTGCAACTGGTGCCCTAACCCTAACTTGA
GAAAAAATTCTCTATCACATCCACTCTTCTGGCATTGTAGAAATCTC

Sequence 1020

GTCCGGTNGATATATATATTTACCTCCTTAGTAATGCAAGAAGTGTTTGTGGGAAGCAGA
GAAGCAAGCAACTGTATTTCTTGTCTCACCTAAGCATTACTGGAGGATAAGCCACATCA
GTCTACAAAGAGGTTTTATACAAACATAATAAGATGTAAATGGACCAAAAGTTGAAAG
CACATTCTTGCAAGTAAGCACCTGTTACTCTCCAAGCAACCATGGGTTTACCATATTTGG
GGATTTTTTGAACACTTAGNCACTTTCTTGCTCCCAAGGGGACNTTACAAAAAGTGNA
NACATTTTTGTANTGTNNCCCGTTATTAATAAAGCTAACNTTTGTAACTNCTTGTTTT
CAAAAGGGCTTGNTTTTTGGACAAATCAAAAATGGAAAAATGGATTTCCACCGTTT
TAAGCCTCAATTTAAGCCCCAAGGTTCCCAAAAATTTTTAANGAAAAAGTTATTCGG
GTATTAGGTNNGNCCTGGGTTAAAAAACCAAGAAANAAACCATTNAAAAACAAAGCCCAT
CAAAAATCTTNTGGAAAAAAA

Sequence 1021

CAGGGAGTCGACCCCGCTCCGAGCATCTTGGGGAATTTATATTCCTTTGTGAGAAATGT
TTTGATCATAAGCCTAGAAATGATAAGTAAAGAAATAAGATAATTCTACTGCTTGTCT
CACCCGGTTACAAAGCATGAGTTTGAAGACAATAAGTGCCTTGTCCACATTTTGCAGAG
ACAACAGTAAATACTCCAAAATACGTTCTTTTCATGGTCAGTGTGAGCTTGATTTATGT
CGACATGAAGTTCGGTATGGCTGTTTAAGGGAAGATGAGTGCTTTTATGCCCATAGTCTT
GTGGAAGTGAAGTCTGGATAATGCAAAATGAAACAGGTATCTCACATGATGCTATTGCT
CAAGAGTCTAAACGATATTGGCAGAATTTGGAAGCAAATGTACCTGGAGCGCAGGTCTTG
GTAATCAAATAATGC

Sequence 1022

CNCGCGTCCGCAAAGCAAACGACAGCTCAGGGGGCTCCAAAGACCTCATTATAGCAGCA
AAAGGAACTCAGGTAGTCAAAATATCAGTACACATGGGACGTGTGAGTTTAAACAGGAG
CCCCGGAAGAGTCATAGTCCAGCAGTGACACATCAAACTAGCAGCTGAAAGGGACTTG
AATGTGACCATCAGTCTTAGTACTGATAGACCAAAGCAGCGATCACAGGCAGTAGCAAAC
GAGAGGGCACACCCTGCCAGCACAGCAGTGNCGAAGTCTGGGGAAGCCATGGCCTTAAAC
AAACTAAGACTCAGAGCAAAGAAGTCAATGCAAAATAAACACAAAGCCAATACGAGTCTT
CCTTTTCCTAAGTTCACTGTCAATTCAAATCGCTTAAGGAAGCAATCTATTAATGAGACA
CCTTTGGGAAGTTTGTCAAAGGATGATGGAGCTAGAGGGGGCTCATGGGG

Sequence 1023

CNCGCGTCCGGCCAACCGCCGAGGAGCAGTGCCCTATTGAGCACAGTGCGCCAGGGCCAC
TGGCAGATTGTTGATCTTTTACTACCCATGGAGCTGATGTCAACATGGCAGACAAGCAG
GGCCGCACTCCCTGATGATGGCTGCTTCCGAAGGCCATCTAGGAACCGTGGACTTTCTG
CTTGACAAAGGTGCCTCCATTGCTCTTATGGACAAAGAAGGATTGACAGCCCTCAGCTGG
GCTTGTGTTGAAGGGCCATCTCTCAGTAGTACGTTCTTGGTGGATAACGGAGCTGCCACA
GACCATGCTGACAAGAATGGCCGTACCCCACTGGATCTGGCAGCTTTCTATGGCGATGCT
GAGGTGGTCCAGTTCCTGGTAGATCATGGGGCCATGATCGAGCACGTTGACTACAGTGGA
ATGCGCCCTTTGGATAGGGCAGTGGGGTG

Sequence 1024

GTGCCCCGCGTCCGAGAAGTCAGGGAGTGGAGGTTCTATAAGGAATTAACAGCTGAGGA

TABLE 1

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CGGAAGGGTTTGTTCCTCCGTTTGAACCTAAACGCAAGTGGAAAAGAATACTCAGAATGTA
TTTTCTACTTTACATCTGCTGGGGAAGGAAATGTGTCAGGAAGCCGCTGCATCTGGTCA
TTTCATCGCATCAGAATCACAGCAGACGTGGAAGATTCCATGTGGTGGGGAATAAAGAAA
TAACTTTATGCTCTCCTGAAAAACAGCGGGAGCCTATGTGTGTGTGCGACACTGTAATCT
CAAGGAGATTCACTCAGAGCTGTCTCAGTCCAACCTCCTGCATGACCAGATCTTCCCTTAG
CATCTTTTCTGTGATGAAATATTATCTTGTGTTAGAGTTAGGAATAGGAACTAACCTGTA
GGAGCATGTCCCCAAATGGACATTTGAATGGACTAACAAAAACAACCTGGAAAGACTGAAT
TTCCGACACAAAGGAATGATGGGATCAAAAAGAAAGC

Sequence 1025

GGAGTCGACCCACGCGTCCGGTCGACAGCCTCCGCCACATCCTCCACCTCTCTTGGTCCA
GCGAGCGTTGCCGGGCCAGGGTCAAGCGGAGGGCTCCGACGGCGCGGACGGAGCGAAGCG
CCGAGCCATGGCGCACAAACGGGCATNACGCCACGGGAAGAAGCTGAAGGAATTCTTT
GCCAAGGCACGGGCTGGCTCTGTGCGGCTCATCAAGGTTGTGATTNGAGGACCGAGCAGT
NTCGTGCCTGGGTGCNCTTCGCAAGGGAGCCAGNTAAGGCNCGCTNGGGGATCAGGGACT
ATTGAACAGNGGCCCGTGGCTTGCNCACTGCNTGGGACCGCCCCAGGCAGGCCCTGCN
TACCTGGCTCTACCGCGCTTCGACTNACAAGAAATGGCTCAGGGGNCTTTCGAAATGGGG
CTTCTTTCCTTCGCCCTTGGTTCCGCNCTNGAATAAACCTCCCCCGTGGCGGCTTGAA
AGANTGCCTGTACCGCCGGGNAATGCNNGGCCCCACAAGTGGAAGGGAAG

Sequence 1026

AGGGAGTCGACCCACGCGTCCGCTCCCGCCAGGCGCTTTCTCGGACGCCTTGCCAGCGG
GCCGCCCGACCCCTGCACCATGGACCCCGCTCGCCCCCTGGGGCTGGNGATTCTGCTGC
TTTTCTGACGGAGGCTGCACTGGGCGATGCTGCTCAGGAGCCAACAGGAAATTAACCGC
GGAGATCTGTTCTCCTGCCCTAGGACTACGGACCCCTGCCGGGCCCTACNTTCTCCGTTT
ACNTACTACGACAGGGTACACCGCAGTAGCNTGCTCGCCAGTNTCCTGTTACNGGNGGGC
CTGCNAGGGGGCAACCGCCCAACCAATTTTCTTACACCCTGGGGNAGGGCTTGCCGAAC
GAATGCCCTTGCTTGGGAGGGATTAGNAAAAAAGGTTTCCCCAAAAGTTTGCCCGGCTGG
CAAGGATGGAAGTGTTGGGACCGAACCAGGATGTGAAGGGGGGGTTCCACCAGAAAAA
AGGTTATTTTCTTTAATCTTAAAGTTTCCANTGGAACATGGTNGAAAAAATTTCTT
TTTTNCGGGTGGGGGTGGTTCACCCGGAAC

Sequence 1027.

CGTCCGTAGTCTCTCTCGTGGCCCGGAAAAAAGAAAGAAGGTTGGGGCCAGTCACC
CCCACATCCCTTTATGGAGGCTTCCAGATCATGGATCCTGTCACGCGCATCCCGGTGAAG
AGAGTCCACCAACAGGCTTTGTATGGGGTCTCGCTCTGTTGCCAGGCTGGAGTGCAGTG
GTTGATATGGCTCACTGCAGCCTCAGCCTCCCTGGGATCAAGTGATCCTNTCACTCAG
CCTCCCAAGTGGCAGGGACCGCAGGAAGGCCTGGACGACGGCCCGGACTTCCTCTCAGAA
GAGGACCGCGGACTTAAAGCAATAAA

Sequence 1028

CGCGTCCAACCCCTTCTCAGCCTGTGCGGAGCAGAGGGCAGTGGCGGTGGCCCCAAAGG
AGGGACCGCTGACAAAGGAGCCTCAGCCAACCAGGAAAAAGGCTAAATCCACCTTACCC
CTCCTGACCCCCCAAGTGGAGGGAACAGATCCTGGCCTGAGGGGTCTAGCCTGGAGCA
GGCGCCTGCGCCCAGACCCTGGAGAGCCTTGACCCAGAGCCTGTGCTGAGGTCCAGGGAG
TGTGGAGAGCTCCTGGTGTGAGGACTGAGACTGACAGGGGAGCCCCCTCATCTGGCCC
CCTTCCCTTTCCGCACTGTCCGCTTTGTGAGGCTCAGAGGAAGGACAGTCTGCAAGCCCG
CCTAGGAGGTCCATCCCCAGCAAATGTTTTGGAGGTCCCCCAGAGAGCAAAGTGGGCCA
TGGCAAGAAGTAGGGGGTGGTTGGACCTGTCACATGAAATGGATCAACACTTGAATGGG
GA

Sequence 1029

CGTCCGGAGAAGATGGGCCTCCCGGGCTCAGACTCACAGAAAGAGCTGGCCTGACCACCA
GGCACCTCACTGGCACTGCTGACCCATCCCAGAAACACAATCTCAGGGACCCGAGCAGCT
CCAAGGACGAGAGGATACAGCAGACACAACCTAATAGAGAGGGCGCCTGCAGCCTTAACC
TCCACGGCCTTCGATACTTATGCAAGCCTGGTGTGCTCCTGTCTCAGAGTCATCCTGC

TABLE 1

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GCTCATGCCTTTTCCCGAATGGGTTACCTCTGGCAGTTGCCGCTTCAGTCTTGGCCTTA
GCCTCATCTTGAAGTGGGTAGCTGGCGGGAGAGGGTGGGCTGCGCCCCCTGCTGGCCCTG
AGGCTGCAGAGTTGGGAGCAGGACACCTCACCTGAGTTTCATTTTTTTCATGTCCAAAC
CATGCACATACTATAGTCCAGAATCAAAGCACTTTTAAAA

Sequence 1030

CCCCCGCTTTTTNNANNCNCGGGGGGTGNGGCAAAACTTTTCTAGAAATNGCGCC
ATGTTGAAACNNTNTNCAGCANCCGGCTGCACAGGGNGTAGCCCANCTCCAGGTCC
ACGGAGTGGTGTGGACCTCCACCTCACAGCTGCCTCTGGCAGCCAAGCCTCTTTTCGCC
CGGCCCCAGCCCCCTCTGGTTGATAAACGGGTGGCCCTCCTCAGCAGCGTGGCTGCCTTC
ACCTTGATTTCCCCAGGGCTCTCGGCAACATCGATAAACCAAGCCTCGCCCCACCACTGG
GCCCTCCCCACCCAGTCTGCCAGGCTGGGAGCTGGAGCTTGCTGAGTCTTGAATGCCCT
TCTAGATGGCTTCTCTAGAGGCTCTCCTGGCAAGAGAGGGTCCCAAGGGGAGCCCTGCAA
AGCAAAGGCTCCTTGCTGGGGCGGGATAGAGAATCTCGCCTCTGTCTGGTGTGTTACCT
ACTGGGGGCACAGGAACAATTCCTCAAGGAGACAGTGGCATGGAGCTTTGAAAGACGAA
GTANGTGTAGCAAGGAAATAAGGAGGAACGGGGTTACGGGCAGAGGAGAAAGCACATG
CCAAGTCAGCAAAGAAAAGTAGAATTCGAAAAACTTTTTTA

Sequence 1031

GGCCAGAGCTACTACGCCGGCCGATGGCGAGGAGCCCCCGCCCGGAGGCTGAGGCTCTGGC
CGCAGCCCCGGGAGCGGAGCAGCCGGTCTTGAGCGGCCTGGAGCTGGTGAAGCAGGGTGC
CGAGGCGCGCTGTTCCGTGGCCGCTTCCAGGGCCGCGCGCGGCTGATCAAGCACCGCTT
CCCCAAGGGCTACCGGCACCCGGCGCTGGAGGCGCGGCTTGGCAGACGGCGGACGGTGCA
GGAGGCCCGGGCGCTCCTCCGCTGTCGCCGCGCTGGAATATCTGCCCCAGTTGTCTTTT
TGTGGACTATGCTTCCAAGTCTTATATATGAAGAAATTGAAGGCTCAGTGAAGTGTTCG
AGATTATATTCAGTCCACTATGGAGACTGAAAAACTCCCCAGGGTCTCTCCAAGTATAGC
CAAGACAATTGGGCAGGTTTTGGCTCGAATGCACGATGAAGACCTCATTATGGTGATCT
CACCACCTCCAACATGCTNCTGAAACCCCCCTGGAACAAGCTGAACATTGTGCTTATAGA
CT

Sequence 1032

TCGCCCCGCGTCCGCAATTTCTTTGAATTCGATCACTTCTACATTCAGCTTGCCAC
ACTCTTTTTTGATGAAGTTGTGAAGCAGATGGTAGCTGCCTTTGAAAGAAGAGCATGTAA
GCTGTATGGTCCAGAAACAAATATACCTCGGGAGTTAATGCTTCATGAAGTCCATCACAC
ATAAAGGCCAAAAAAGAACTGGTGCCACCTGCTTCTGACTTTAGTTTGTTCACTTTTAGGA
AGTATTTTCATGACATGTTTTCAGAAGCCAGAAAGCATTGTAAACGCAGCTTTGGTTA
TAAACCTGCACCATTGAAAATTTGCACATAGAATATAGACTCACTTGTACATAGAATTAT
TTCTTCAAGTATAATTCAAATAATATGGACATTATCATGTTCTGCATTACAATAATGGG
ATGTCATCACCATTGCTAGAATACTGGCATGATTCTTCTGAGCAGAAGTTGAAACTGTAA
ATTTAAACCTTTTAATTATCACCTTACCT

Sequence 1033

NCGCGTCCGGCCTTTTGTTCAGCTTGCCGGGCAACCGGCCCTGCTGGGGACTACAAGTC
CCGTAAGCCTCCGCGGCGGCACGTCTACCTACACTGTCCAGCCGGCTCCCTTTTTCCC
CCTCCCCGGGGGCCAAGGGCTCCGGCTGCTGCCTGGCGGCCAACGGGGCCAGGTAGGATTT
CCGGGAGAGGCTGCTGTGGAGGCTGAGGAGGCGGCGGCGGAGATCTGGAATGAATTTCT
ATCTGTGAAATTGTGAAGACGAAAAAAGAAATTTGTGCTAGTTTTGCTGTTGTAAGTCCAC
ATTGCAGAAGTTACAATCACAGTGCACAAAACAGTATCTCACCTCCCTAACTGGTTAAT
AGTGGCATGGAAGATCCATTTGAGGAAGCAGACCAGCCCACTACAGAGCCAGGCATGGTC
CTGGACAGTGTGGAAGCAGGAGACACAACACCTTCTACCAAAAGGAAGAGCAAGTTCTNA
GGCTTTGGCAAGATCTTTAAGCCCTGGAATGGAGGAAAAAAGTAGTGATAAATTT
A

Sequence 1034

CGTTTTNNTTCTTCCCTTGGATNAATATTTTCTACTGAAAAGAAATGAAATCTCAGTTCC
ACTATGATAAAAGAAACGAATCACCAGTGTCTGTGAGTGCCCCCACTGCTCCTCCTCATA

TABLE 1
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CCAGCATTGACACTGGTAGCTGAGGAAGGGGACTGCTCAATTTCTAATGTGATCTATTCA
AGAAGCCACATATAAAAAGGCATTGAGGGCTCACTGTCCAGAGAATTGCTTTTGTAATG
CTCCACAACGTATGGGCAAAAGTTTAAGGACTACTGCCTGATGTACCAGGAATCCTGAGT
TCTGTGAAAATCTGTTCAATCCAAATCTGTTAAGCATTTCCAAACATCCAGAGAATGGTT
TCACTGTTGAGGGTGCATGTGGCAGAATCTGTCTCTCTGACCTGTCTTCTGTTACCA
TCCCTGGACAGTGACAGATTTTAAGCCAGCCACCAGAATCTTTTCGAGTTAACCATTTT
TTAGTTTCTGTAAT

Sequence 1035

GTCGACCACGCGTCCGCTCTGACCGCCGCCGGCTTTCACCCACCTGCCCGGCTCATCACC
TCTGACTCCTGCGGGCCTCCAGCCGGCGCTATCTCGAGCCCCGACCAGCTCGGCCTG
CTGTCGGGCATCTGCTGTCTCCGGCTAGGGCTACCTGCCTCCCTCCCGGGGGGTG
CACTGCGAGTCCGACTCTAGTGGGGCAGCGCCTAGCGGACTCCCAAACCCGCTCAGGTC
CTGCCGGCCTCACCGGCACCGCCACCCTCCAGCCGGCCGCGGCTCTGCGCTTGCGCGCC
GGCAGCACACAGTGTTAGGGGCGCGCCCTCTGCTCTGGACATGCGCCGCGTCTG

Sequence 1036

GTCCGCCCCGCGTCCGGGAAAATGCCGCGAGTTTGTGCTTGAAACCTAAGAGCAATCCT
TGGTTTTGTGCTACATTATTTTCCAGACCAACACATCTACCAAGTNGAATTTTATNNA
CTTTAATTTTATAATAAAGTTAGTAGAGTCACTCAACTTACAACTTTATTTATGNTGGC
TTTGGGCAAAAAAATCACTTATAAGGCAGCTCTAAATTTGCCTTGATAAGCTAAATAAT
TACTTTTATACTTACTAAAGCAGAACAAACAGTGAACTTTCTAAAATATTCTATNCTG
GAAATAGNNGGACAGGGGGATCTTTTATTTATAATNCTCATCAAGATGAGTGAGGTTGTT
ACCAGGATATTTTTATGGTTTTTTTTAATTTTTCTCCAAAGNAATTATTTTTAATAGG
AATCCCAAAAGNAATCAAGAAATTAGTTTTTCAAAAATAAATTTTTTCCAGNTNGATAA
AAAGGAAGGTNGTTTGTAAATTAATCCATTATTTTACCACCTTAAAAAATTTGGGGGG
AATACCATTCTAAAGGGAACCTTTAATTCCTTACCTAATTCANGNTAGGGNGTCTTGG
CAATTTNGAATANTTTTCNTTT

Sequence 1037

GCGTCCGAAAATATTTAGGTAATGTCATAAAATTTATTTTACCTTTCTCATTTTCTGAGA
AAATAAATGAAAAAAACCCTAGATATTGCTTTATTACCAACAGTGTGTAGGTTTTGTAC
ATATGGAAATTTGACACAAAAAATAGGGAATTTGTATAGAGAAGTTCCCTCTTATAAA
AGGACTCCCATTTGATTGTTGAAACTATAAAATGCACTTTTACTTTACCATATCTTGAA
ATGACAAAATATCGCCCTTTGAAAAACCTGACTCTTTCACCGTTGTAAATTTCCAGAGT
CTACCTCAGTTAACCAGGCCTTAGTTTTAGGCAAGGAATGAATTGAATTAATAATTTTCACT
TCAATCATTTTATGCCAGAAATTTGTTTTCTTTTAAAGGCACCATCCTTCCCTCCTTGG
CTGGNTGGCCCTTCCCTCCCATTTAACTTTCTTTTTTAATNCTTTGAAAAATTGGGT
TTAAAAATATTTCCAATCCTTTTCTTTTCTCTAGCCAAAGTNGGTTTTGTNATTTNCTN
AAATAAAAGGGCCCTCTGGTGAAAANGGNGCTGGAATTAACCTT

Sequence 1038

CGCCNCGCGTCCGCAAGACTTTGAAAAATNNGATCATGGTTCTTCTCAAATACCAGCAT
GTCTAGCATCTATCAGAATTGTGCAATGGAGGTTTTGATGTCCAGTTGTTACAGTGTAG
AGCTTGTGGAGCTTTAGTTTATGATGAAGAAATTATGGCTGGATGGACAGCAGATGACTC
AAATTTGAATACAGCTTGTCATTCTGTAAAAGCAACTTCTTGCCTCTTCTCAATATAGA
ATTCAAAGATTTGAGAGGTTCTGCAAGCTTTTCTGAAACCAAGTACCTCTGGTGACAG
TTTACAAAGTGGAAGCATTCCATTGGCAAATGAATCCTTGGAGCACAAACCTGTATCCAG
TTTAGCAGAACCTGACTTGATCACTTTATGGACTTCCCAAAACATAACCAGGATCATAA
CTGAAGAAACAGGCTCTTGCAAGTTGACCCAAGTGATGAAATAAAGAGAGCCAGTGGGAGA
TGTCCAAACTATTGAAAATTTTCTCTGTGNCTTAATAGGTTTATC

Sequence 1039

TGANATTAGCATCACTTCGTCTACTAAGAATCTTAATAGATGTAAAAATATCTTTTAAAA
CATATGGTAGGATGGGTAAAATTTGGCAATACTATCCAGGAAGTCACTAAGTACAGATGA
ACTGATTTAGTCCTAATTCGAAGAGTGATTCCACCTACTTGACTAGAAAATTTATACC

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TGGTAATAACTCCTTGTCCTTGAAGATTTTCAACTAAGGAAAACTGTTTTTCAGCAGGAC
CTGATTATGCACTGCTATCTAGGTAGGGTCACTTATGGTTTTATAATATATTTAATTGGA
TTATAATATTCCTTTTTTCTTGCTCTTGGACAAAATCCTAGCTTTACTGTAATTTAAAA
AGATGAGTTTAAAATTTCAAGGCTTTAAAAACATACCAAACATTGATAAAAATGAAATCTA
GATAAAAGTATTTTATCAATGTTTCAGTTGCCTGGATTCAATAACTGTATTATGGTTATGT
AAGGATAATATCTTAGGAAATCACATTATGGTATTAA

Sequence 1040

GTCGACCCCGCGTCCGGTAGCTTAGTTGAGTAGATAATCTTTTGTTGTTTCCTCCTTGTA
ATATACAAGCCTTGGCTTCTGTGACATCATACTCTCCTAGATTTCCCCCTGCACTGTGG
CTTCTTCTCAGTCTCTGTCCATCCCTGGTGCTCCTGAAGGTTCTGTTCTCAGCCTTACAC
ACATTACCTGGGTGATCTCATTCTCTGCCATGACTTCACTTGCCATATATGTGCTGATTT
TCCCCAAATTCCTATTTCTCCCGACCTTTACATCTATTTTATTTGCAGGTCATATATCTA
ATAAGGAATTGATATCCAGTGATCATGTAGAATCCTGTAATCAATACAGAAACCAAAAC
AGTCCAATTAATAAATGGAGAAGAGATTTGAATGAACATTTTTCTAAAGAACATCTCAAG
CTCAAGATTTCCAGATAACTTTTCTTCTTCAAATCTGCTTCTGTGTTTCCTCATCTG
TAGGTGGCACAGCATACATCTGATTTCCCAAGCCAGAAACCTCATAGTTATTCTTGACTC
CAGGAAGAAATATTATTGAGTTTTTAAAAACTC

Sequence 1041

CGACCCCGCGTCCGTGCTGAACTGAGCTCAGGTGTGTTTTTCTTCCAAGCTTTCTAGCAA
GGTTTCTACTTAAAATCACCTGTGTGCAAGCCCAAAGGACATTTTCATCTATTCTAAGCAG
AAAGGCTGTTTTGTTCAATACAGTGAGTGCTGTTTCATCTCATGGAGTGGGAGGAGCACTA
AACCAGGAGACAGAGGACATGGATTTGGTTTCCAGCTTAACCAGTTAGGACTCTGTCCTC
TGCAATCTGGAACCATGATGCCTGCCTGCCTCACAGGGCTGTTGTGAGGACCAGAT
GAGATGATGTATGTTCACTTTTGAATCTCTAATTTAAAGTCTTAATATTTGTCTTC
TGAGTGTGAGGGGATAAACCTGGATGTAGACTATTAAGCAGCATAGGAGAAAAGAACAAT
AGAATCTAATGGACTGGGTTTGAATCTCTCTCTAAATGCACTGCTTCAGACAAAGTGAA
ATCCAAAGGTGTGAAAAAGTATAGCTGCAAAATTGGAAAAATGTGTTTCAAGAGT

Sequence 1042

AGTCGACCACGCGTCCGCTCTGACCGCCGCGGCTTTACCACCTGCCCGGCTCATCACC
TCTGACTCCTGCGGGCCTTCCAGCCGGCGCTATCTCGCAGCCCCCGACCAGCTCGGCCTG
CTGTGCGGCATCTCTGCTGTCTCCGCTGTAGGGCTACCTGCTCCCTCCCGGGGGGTGC
ACTGCGAGTCCGACTCTAGTGGGGGACGCGCTAGCGGACTCCCAAACCCGCTCAGGTCC
TGCCGGCCTCACCGGCACCGCCCACCTCCAGCCGGCCGCGGCTCTGCGCTTGCGCGCCG
GCAGCACACAAGTGTTAGGGGCGCGCCCTCTGCTCTGGACATGCGCGCCGTCGCGAGCGT
CTCTGGGACCGGAAGTGCGGGCGAGCGCGGNTCCCCGGGTCTGACAGGAGCAAGCTGTGG
GCACCGNGGCGGTAGTTGGAGGCGGNAGAGGGTNCGTAGCCGNGCCGNCTGCCCGNCATG
GGCCTNC

Sequence 1043

AGTCGACCCCGCGTCCGCAGGGGCGTGTTGGCCCCGCACAGATTGAGCCGAGTTGTGCGC
CCGCTGGGAGAAGTGACCCTCCTGCGCCTGAAAAGAAATTTCAATTCATATAGGTGACT
ATGCAGCCTGCAATTCAGATATGGTTTGGAGAAGATCTGCCTCTAAGTCCTCGGAGTCCT
CTGACTCCCAGACACGGACCAGGATTGGCTAATGTTTGTGACATGATGAGTGGATAGCT
GTGAGGCATGAAGCCACTTTGTTGCCATGCAAGAAGATCTGTCAATCTGGTTATCTGGT
TTATTAGGTATTAAGTTAAGGCAGAAAAATTATTGGAAGAACTTGATAATGGAGTACTA
TTATGTCAACTGATTGATGTTCTTCAAAACATGGTGAAAACATGCAACTCTGAAGAATCA
GGGAATTTTCCAATGAGAAAAGTGCCCTGTAAGAAAGATGCTGCATCAGGTTTCATTTCTT
GCTCGGGACAATACCCGCAAACTTCCTTCACTGGTGTAGGGACATTGGGGTTGATGAAAC
TTA

Sequence 1044

ACGCGTCCGCCCACGCGTCCGGAGTCCTCCTCCCCGGGTGCCTGCCCGCAGCCCGCTCGG
CCCAGAGGGGTGGGCGCGGGGCTGCCTCTACCGGCTGGCGGCTGTAACCTCAGCGACCTTGG

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CCCGAAGGCTCTAGCAAGGACCCACCGACCCAGCCGCGGCGGCGGACTTTGCCCGGTG
TGTGGGGCGGAGCGGACTGCGTGTCCGCGGACGGGCAGCGAAGATGTTAGCCTTCGCTGC
AGGACCGTGGTGAAGCCTCTGGGCTTCTGAAGCCCTTCTCCTTGATGAAGGCTTCCAGC
CCGCTTCAAGGCACACCAGGATGCACTTGCCACGGNTTGCCGTGCCCCCTNTTCAGCAGT
CCCT

Sequence 1045

GTCCGCAGAATTGACNAATTGAGGAGGTGTAAAAATAAACAGTGTTCTCTCTCTACCCC
AAAGCCACTACTGACCAAGGTCTCTTCAGTGCACTCGCTCCCTCTCTGGCTAAGGCATGC
ATTAGCCACTACACAAGTCATTAGTGAAAGTGGTCTTTTATGCCTCCAGCAGACAGACA
TCAAGGATGAGTTAACCAGGAGACTACTCCTGTNACTGTGGAGCTCTGGAAGGCTTGGTG
GGAGTGAAATTTGCCACACCTTACAATTGTGGCAGGATCCAGAAGAGCCTGTCTTTTAT
ATCCATTCTTGATGTATTGGCCTTNTCCACCGATTTCATTACGGTGCCACGCANTCAT
G

Sequence 1046

ACCACGCGTCCGCCCACGCGTCCGGGCGGGGGCATGGACTACTGACCCATGCGGGGCAGC
GTCCCTGTGACCTGGCCGATGAGGAAGTACTGAGCCTGTTGGAGGAACTGGCCCGGAAAC
AGGAGGACCTTCGGAACCAAAAAGAAGCTTCCAGAGCCGGGGCCAGAGCCCCAAGCGCC
CTCTAGCAGCAAACACAGAAGGAGCTCTGTGTGTCGTCTGAGCAGTCGCGAGAAGATTTT
CCTCCAGGACTTGTCCAAGGAGCGCCGGCCTGGTGGGGCTGGGGGGCCCCCATCCAGGA
CGAGGATGAGGGGGAAGAAGGTCCCACCGAACCACCCCTGCAGAACCAGAACCCCTCAA
TGGCGTCTCCTCCCCGCCGACCCAGCCCTAAGAGTCCCGTGACGTTGAAGAGGCCCC
CTTCTCCAGGCGCTTTGGCCTCCTGAAGACAGGGAGTTCTGGTGCCCTGGGTCCCCCTGA
AAGGCGGACAGCGGAGGGAGCCCTGGGGCTGGGCTTGAACGCTCGGCTTTCTTCTCCT
GGCTGGAAGGGACCTTCACTTANGCCAAGGAGCTTCGTNTTGGCAGAATTACCCCGACCC
CCTTCCGAAGCTTGCCGGAGCCCTTNTGTCTTGCTGAGGGTCACCAAGCCTTCTTCC
TTTGCTTGGGAGAACTTCTTGNCTTNCCTTCAGGAATTCNGAGCCTGGATTCCCAGCG
AANCCNAACGTTCCACAGGCTTTCACGGGGC

Sequence 1047

TGTCGACCCACGCGTCCGCTCCCCGCCGAGGCCTCCTGCACCACCTAGAGCCCCACCCCC
GACCCACCCCGGGAGGGCAGAGCCAGAAGAAGGCTCATTAGACCTGGGGGACCCAAAGG
GTCTGGCCTCTTTGGGCAGCCCCAGAGATGAGGGGTGAGCAGAGGAGAGCTCTGGGGTTG
GGGATGGGTTAGGGACGCAAGCTTGAGTTCTAGCCCTTGCTCTCATTACAGCTGTTGTGTG
ACCCTGGGTAAGACCCTTCTTGTGTTGACCCTCAGCTTCCCATCTGTTTAATGGTGGCT
TTGGCCAAGGCAATCCACAAACGTCAAAATTCCCCTTCCCATCAGTACACACACCGATGC
ACACACACTCTCTCTTCTCTCTCTCTCTCTCTCTCTCACACACACACACACACACAC
ACACACACACACACTAGTTAGTGCCCTTGATGAGGCGGGGCAGTGTGTATATGGACCCCT
GGACTTGCTACCTTCAGGGTTCATACTCGTCCCTCCCCTCCTGGCTCTGCTGTCTGGAG
TCTGGCAAGCGGG

Sequence 1048

CGCGTCCGCCACGCGTCCGCCGNCCGCCGCTGCCTGGGCGGGGCCGAGGATGCGGCGC
AGCGCCTCGGCGGCCAGGCTTGCTCCCTCCGGCACGCTGCTAACTTCCCCCGGTACGT
CCCCGTTCCGCCGCCGGGCCGCCCGTCTCQCCGCGCCCTACGGTCGGGTCTCCAGGAG
CGCCAGGCGCTGNCGCCGTGTGCCNTCCGCCGNTGCCCCGCGCGCCGCGCTNCCCGCCT
GCGCCAGCGCCCCGCGCCCGCGCCAGTCTCGGGCGGTGCTGCTGCCCTCTGCCTCG
TGGCCGACCTGCTGNTGGCCGCCGGGCCGGGCCGAGCCTGGG

Sequence 1049

NCCACGCGTCCGCAAGGCGCTACGTTTATTGCCTCGTCTTATTCACTGACCTTTGTAATG
ATACACAGTGAATTCTTTTGACAAAGAGAAATGCAGTGTAGTATGCAGAGCTGCTGTTT
TAATGCCTATGCATTTACTCTTTCCTGATTTAGGCAGAGGTGGCATTCTTTATTGCT
TTCTCTATTTTTTAATGTACCCTACCTTCAGTATTCTTTGTAAGTTGGTGACTTGCA
TCTGTGGCCTTGAATATTTTATTATCACATGTGGCATAACAGTATCCACACTTTTATGTT

TABLE 1

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CTTTATTTTTTTTTTTTTATTTTGTAGCAATTCTCCTGCCTCAGCCTCCCAAATAGCTGGG
ATTACAGGGTGCATGCCACCACACCCAGCTAATT

Sequence 1050

CGCCCCGCGTCCGGGATGGACAAGACAAATCTCTTGTAATAAAAAATTACAAGTAATTTTT
ATAGAAGCTCTGCCCTGAGGGAGGGGGAGCGTGACTTCTCACTCCTTCAGTGTGGGCTGC
ACAAGTGACTTCCTTCCATATGGGATCGTTATAACAAAAGACTGTAACAAGGGCTATGGG
AGTTATAAGACAGGAATTGTGGACAAAAACCAGTGTATATCATAACATCACACCTTGTA
TGTTGGCAGTACAGTCACTGACCTTTGATAAATGTTGATGACATGTTGAGTAAAGGAATG
AGAGAAAGAGGATTGTTTATCTCTGTTTTTATCCTTCTCAGAGAACTTAGAGTAACAAG
GTGTGTTATCAGCCATGCTGATGCCCTTGGTAACTATTGTGTGANATNGGGTGGTTTGA
ATTGGTCAAGTAGAACTGGGGCTGCCAGGCGCAGCCGGTAAGCATTTCATGTGAGCCT
TAGGGAANAAGTGCATTTTGGTAGGAGCCATCAAAAATAGCTTCTTGATATTTCAATAAA
AG

Sequence 1051

GACCACGCGTCCGGGGCTCCTGGGTGTGCCGCGGCCTCTGGCGCGCAGCGACTCAGAGA
ACGTCTACGAGGTCATCCAGGACTTGACGTCGCCGCGGGAGGAGAGCGCAGAGCAGG
TGGACGACCCACCGGAGCCCGTGTACGCGAACATAGAGAGGCAGCCCCGGGCCACTTCAC
CGGGCGCCGCTGCAGCCCCCTTCCAGCCCGGTGTGGGAGACGCACACGGACGCGGGCA
CCGGGCGCCCCCTACTACTACAACCCAGACACGGGAGTTACCACCTGGGAGTCGCCCTTG
AGGCTGCCGAGGGTGCCGTCAGCCCAGCCACCTCCCTGCCTCGGTGGACAGCCACGTGA
GCCTTGAGACCGAGTGGGGCCAGTACTGGGATGAGGAGAGCCGAGGGTGTCTTCTACA
ACCCGCTGACGGGCGAGACGGCCTGGGAGGACGAGGCCGAGAACGAGCCGAGGAGGAGT
TGGAGATGCAGCCGGGCCTGAAGCCCTGGCAGCCCAGGGGGACCCGNGGNCCC

Sequence 1052

CGGCTTTGCCGCAACATGCTCAATTCCCATCATCGCTCAAAGTGCTAAATTTTCAGGAG
TGAAAAGAAAAAGAGGAAGGAAGAAACCCCTCTCAGGCAATCATGTACAGCCACCCGAAA
CAATGAAATGTAATACATTCTAAGACAAGTGAAGAAGAGCATGGCAGACACACAGATG
CAACTGTGAAAGTTCCTTTTCTTAAGAAATGCAAGGAAGCAGGACTTCTTAATTACTTAC
TTGAAGAAATATTAGACAAAGTTCATTCAATTCAGAAAACTCATGGATGAGACTACTT
CAGAATCAGACTATGAAGAAATCGGGAGTGCACCTTTTGAAGTAGATTGTTCAAGACA
CATTTGTAATTTTCAAGCAGCAATAGAGAAAAAATTCATGCATCTCAACAAAGGTGGC
AGCAGTTGAAGGAAGAGATTGAGCTACTTCAGGACTTAAACAAACCTTGTGCTCTTTTC
AAGAAAATAGGAGATCTTATGTCAAGTTCTACATCAATATCATCCCTGTCTTATTAGGGA
TTACCGTTTCCTAAGCCAAGAGTCATGTCAAATTGCAATCAGGC

Sequence 1053

GACCCCGCGTCCGGGAGGTTGAACGTTCAAGGCTAAGACCGTTACTGAATTGGTTACTAAG
AAGAAGCCAAAGGCTGAAGGCTATGCTGAGGGTGACCTCACTCTCTATCACCGTACCTCA
GTCAGTCACTTCCTCCGAGCTGCCAACCCCTGTTGACTTCCTCTCCAAGGCCAGCGAAATC
ATGGTAGATGATGAAGAGTTGGCACAGCATCCAGCTACCACTGAGGACATACGGGTGTGC
TGTCAGGACATCAGAGTGTTGGGGCGCAAGGAGCTCAGGTCGCTACTAACTGGAGAACA
AACTTCGGCGATATGTGGCCAAGAAGCTGAAAGAACAAGCAAAGGCACTGGACATCAGC
CTCAGCTCTGGAGAGGAAGATGAAGGTGATGAGGAGGACTCAACAGCTGGAACCAAAAG
CAGCCCTCTAAGGAGGAGGAGGAAGAGGAGGAGGAGGAACAACCTGAACCAGACCTTGGCA
GAAATGAAGGCCCAAGGANGTGGCGGAATTGAAGAGGA

Sequence 1054

GTCCGACCCCGCTCCGCAAGGACCATGTTGTACCACAGCCTCTGCTGAGCTGAGGGACAC
ATGTCCTTGGTGAAGACCTGCACCCCTGGAACCTCCACCATCATCAACTGNAGTCTC
ATTTGCAGTGGAGAAAAGAACCCGACGTCCACAGCCAGATATACACCCAGCTCCATGCC
AGCCCTTCATGTTTACCTTTTGCTTTGTTAATTACATGTCAGACTCCTAGAGGGCCTCCA
GACTAATAGGAAGCATTTCTGTAACCAACCTGCCACCCACTGATTGAGAAATGGAAATCA
CATTCCACAATCTATGGCTTCCACCAGCTAGCCAGGAAATACTTGAAATCAGCATTCT

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[illegible]

Sequence 1055

CCACGCGTCCGCTGTTCCCGACAGCATGGATTAGCTTCCGTGTTCTGAAGTTGTTCTTTT
CATGGTGTCTGACACCGAGGGCCGTTGTTTCGTCCATCAGGCGGGATTGGATGGAGTCTTG
GTGTTTTGCCTTCTCAGGGACCAAAAATGTATCATTGACTCCTTAACAGTGACCTTCCTC
CCAAGGACATATCCGTGTTCATTTTTTCATAGTTTTACTCATATTCATAGGTAGATTCTG
TTAATGTGAGTTGGAAAGAAAAGACCAATTTGTACACCAGTCACACCACAAGACAGTTTA
TCATATAAAATACCTCAATTTTTTGTATTCCTCATTTCCACCTCACAATTGTACTGGTGA
TGAATTTTAAGGGTCTG

Sequence 1056

TCGCCNCGCGTCCGGGCAAGGAAGGCTCTGTTAATTTATAGCTGTTTAGAGGGGAAAGCA
GTGCAGACCACTTATTAAGCCCGCTGAGGACTAGCTTTCTGTCTTTCATACATTTGGGAA
AGATAGGAATGACTGTTTCAAAGAAGAGAGGTGCACATAATTTATGCAGGCAAGTATGAT
ACTTATTTCA TTGGTTTTGTGAGTCATATATACATATATATATACACATATATATA
TGACTTGAAAATTAAGATTTAATACTTTAATGTTTTAAGTGTGGGGGGTTTGGGAAGGAA
GGAATGTAATATNTGGGATTTAGCCTTAGGCTTTAAGTTTTAGGCTGGCAAAGAAATGT
TATTCAGTGGGTTTGAGGTTTGGACTACTTTCTTCAAACCTTAGAGAATTATAACAGGATG
GTGTTTACCTTTGTTACCTGGGATGTCCCCAAGACTCTAGCTTCTTCTATCAAGTGGTT
GGGTCTGATAGAAGAGGTA AAAAATTGCTCTTGAAAATNNTCTACAATTATGCAGGTTCTT
TGATAAAAATTTTCTGGTTAAATCC

Sequence 1057

CCNCGCGTCCGCCNCGCGTCCGCCAGGCCTGGGCGGGGCCGTGACGGCGGCGCTAGGAC
CCGGCGGGCGCGGGGTGCGGCGAGGCCTGGGCGGCCTGAGGAGCGCGGACCCCGGCGCTC
GGCTCCCGGCGCCATGTGAGGGGGCTCGGGGGCCGCGGGGGGCCGGGCGCTCCCGCCGG
AGGTGTGAACCCACATCCCTGCCCCAGGGCCACCTGCAGGACGCCGACACCTACCCCTC
AGCAGACGCCGGAGAGAAATGAGTAGCAACAAAGAGCAGCGGTCAGCANTGTTCTGTATC
CTNTTGGCCCTCATCACCATCCTCATCTNTACAGCTCCAACAGTGCCAATGAGGTNTTN
CATTACGGNTNCCTGCGGGGCCGTANCCGCCGNCCTGTCAACCTCAAGAAGTGGAGCAT

Sequence 1058

TGGGGCCGGGAGGAAGTCTAACCTTTGGGAGACTCCAAGACCGCAGCTCCGAGGTCGGCG
GGGGTCTGGGTGGCCATGGAGGAGCCCCCTGTGCGAGAAGAGGAAGAGGAGGAGGGAGAG
GAGGACGAGGAGAGGGACTAGGTTGGGCCCGAGGGGGCGCTTGGCAAAGAAGCCCCTTCC
AGCTGACCGCCGAGGACNGTGATNACATCTNCTACCTG

Sequence 1059

TGGCGATCGCTGAGAGGCACGGAGGGCCGAGGCGGNCTGGGAGGCGGCCCGGAGGTGGG
GCGCCGCTGGGGCCGGCCCGCACGGGCTTCATNTGAGGGCGCACGNC CGCACCAGCG
TGCGGACTGGCCTCCCAAGCGTGGGGCNGACAAGCTGNCGGAGCTGCAATGGGCCGCGGC
TGGGGATTCTTGNTTGGCCTCCTGGGCGCCGTGTGGCTGCTCAGCTCGGGCCACGGAGAG
GAGCAGCCCCCGAGACAGNGGCACANAGGTGCTTCTGCCAGTTAGTGGTTACTTGGAT
GATTGTACCTGTGATGTTTGAACCATTTGATAGATTTAATACTACAGGCTTTTTCCCAA
GACTACAAAACCTTCTTGAAGTGACTACTTTAGGTATTACAAGGTAAACCTGAAGAGGC
CCGTGTCTTTTTGGAATGACATCAGCCAGTGTGGAAGA

Sequence 1060

CCACGCGTCCGGGGTGTGGTGCGGCGCTGTTGGGGTCTCCGCTGGCTCATGGCGCCAG
GCGTGGGAGGCCGAGTCCCCAGTGCGAGCACTGGCCCGACTCGGCTGGGAGGACTGCCG
GGA CTCCAGAGTCCGCGAGGCGCTGCGGGCGCTGCACGCCGCCAGGGAAAACAAAGAAGA
AGAGTTAATCGACAAACTGGAGGTGGTCACAATGCCTTCCCCATACCAAAAAGGACTGCC

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AGTGAAGCAATATGCTGTGCAGTCTCAGCTTCCCGTATATGAGTGGCCGGATGTGGGATC
TGGAGAATATGATGTTGGAGTAGTGGCTTCGTTTGGCCGACTTTTGAATGAGGCTCTTAT
TCTTAAATTTCCCTATGGCATATTGAATGTTTCATCCCAGTTGCCTCCCGAGATGGCGTG
GCCCAGCCCCTGTAATCCATACAGNTGCTTCACGGAGACACAGTTACNTGGAGTAACAAT
TTATGCAAATTAGACCTAA

Sequence 1061

GCCGGTTCTTAGGGAGGCAGGTGCTGGCCTGGCCTGGATCTTCCCCATGTTCTGTGCT
GCCTTTTGATACGCCTGATTGTCAACCTTCTGGGCATCTCCCTGACTGTCTCTTCACCC
TCCTTCTCGTTTTTCATCATAGTGCCAGCCATTTTGGAGTCTCCTTGGTATCCGCAAAAC
TCTACATGAAAAAGTCTGTTAAAAATCTTTGCGTGGGCTACCTTGAGAATGGAGCGAGGAG
CCAAGGAGAAGAACCACCAGCTTTACAAGCCCTACACCAACGGAATCATTGCAAAGGATC
CCACTTCACTAGAAGAAGAGATCAAAGAGATTTCGTGCAAGTGGTAGTAGTAAGGCTCTGG
ACAACACTCCAGAGTTCGAGCTCTCTGACATTTTCTACTTTTGCCGAAAGGAATGGAGA
CCATTATGGATGATGAGGTGACAAAGAGATTCTCAGCAGAAGAAGTGGAGTCTGGAACC
TGCTGAGCAGAACCAATT

Sequence 1062

CCNCGCGTCCGCTTTGAATNCTTATCTTTGATTTAATTTACACGCCAGCATTTTGCCACG
TTCTAAATAATATTTAGCTCAACTGATTACATCGTATTAATGACCATTCTAGCAAAGGCC
TACAAGTGGTGTGGGAATCAGGGAAAGGCTGCCTCTTTGGTATCTCAACTGGTATTGATT
ATTGCTATCAACTATTTGGGGAGAAAAAATCAAATGAAGCCCTGTCAAATTTTAGAAGT
ACTATCTTTGGTCCTTCAAACACTTTGTGATGACACCTTAAGAAAAATAAAGTTGAAGTT
CAGGTCTTGCCATTGCCATTACAGACAAATTAGGAGACTTGGTTTACCTGGGAACAAATT
TACTTGAATATTAGTACCTGAAACTATGCCAAACCAAAGAGCAGCTGCAGTACATTTCGT
TATTTTAAATGAACAAGGTTTACAAAGNTTATTTTCATCTATACCGTAAGGNTGGATTTT
TTTTNAA

Sequence 1063

GTCACCACGCTCCGCCNCGCGTCCGGCGTGATGGAGGAACGCTGGGCACGGGCCCGGGC
GCGGGTGGGGGGGCGCCGAGGGGCGCGGGCCGAGCGGCGCGCAGGGCGGCAGCATC
CACTCGGGCCGCATCGCCGCGGTGCACAACGTGCCGCTGAGCGTGCTCATCCGGCCGCTG
CCGTCCGTGTTGGACCCCGCCAAGGTGCAGAGCCTCGTGGACACGATCCGGGAGGACCCA
NACAGCGTGCCCCCATCGATGTCCTCTGGATCAAAGGGGGCCAGGGAGGTGACTACTTC
TACTCCTTTGGGGGCTTGCCACCGTTACGCGGNCTTACCANAAGTGCAGGCGAGAAGACC
ATTCCCGCCAAA

Sequence 1064

GTGCCACGCTCCGCCACGCGTCCGCCTGCCCCTCGCCGCCCGCCGCCTGCCTGGGCGCG
GCCGAGGATGCGGCGCAGCAGCCTCGGCGGCCAGGCTTGCTCCCCTCCGGCACGCCTGCT
AACTTCCCCCGCTACGTCCCCGTTGCCCCGCCGGGCCGCCCGCTCTCCCCGCGCCCTCCG
GGTCCGGTCTCCAGGAGCGCCAGGCGCTGCCGCCGTGTGCCCTCCGCCGCTCGCCCGCG
CGCCCGCGCTCCCCGCTGCGGCCAGCGCCCCGCGCCCGCGCCAGTCTCGGGCGGTCA
TGCTGCCCCCTCTGCCTCGTGGCCGCCCTGCTGCTGGCCGCCGGGCCCGGGCCGAGCCTGG
GCGACNAAGCCATCCACTGCCCGCCCTGCTCCGAAGAGAAGCTGGCGCGCTGCCGCCCCC
CCGTGGGCTGCAAGGAGCTGGTGCGAGAGCCGGGCTGCGGCTGTTGCGCCACTTGCGCCC
TGGGCTTGGGGA

Sequence 1065

CGCGTCCGAACGGCATCATCACGCCCGCCACCATCCCCAGCCTGGGCCCCCTGGGGAGTCC
TGCACTCAAACCCCTATGGACTACGCCTGGGGGGCCAAACGGCCTGGATGCCATCATCACAC
AGCTCCTCAATCAGTTTAAAAACACAGGCCCCCCACCGGCAGATAAAGAGAAAAATCCAGG
CCCTCCCCACCGTCCCCGTCACTGAGGAGCAGTAGGCTCCGGGCTCGAGTGCCCTGTGT
GCAAGGACGACTACGCGCTGGGTGAGCTGTGCGGCAGCTGCCCTGCAACCACCTGTTCC
ACGACGGCTGCATCGTGCCCTGGCTGGAGCAGCAGCAGCTGCCCCGTCTGCCGAAAAA
GCCTNACGGGACAAGAACACGGCCACGAACCCCCCTGGCCTCACTGGGGTGAGCTTCTTC

TABLE 1
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TTCTTGTCGTCATCGTCCTTCTTCAAGCTTGGCCAGCAACGAGAACGCCACAAGGAACT
NGTGAGCCCACGTTNGGCCGTCGGGAAAACACGGGGN

Sequence 1066

CGCGTCCGGCCTCCAGCACATCCTGCCTGCAGAGGGTCTGGCTAGCTGCCTTTTCAGCTC
TCGAGGGATAGAGATTCTACAACCTCCCTCTGTCATCAGTTCAGAGCCACTCCCCTTTG
CACTAGAAGTTCTTGCTTTCAAAGAATGAGGGTGTGAGGGAGGGAGGGGTCAAGAAACAG
AGTGACAGGGGAAACAGGCAGAACAAAGTCAGGGCAAAGGACCCAGCATGAATAGTTGTG
GAGGTGGAGGTGGGGAAGCAGCCTCACATCTCACACTTCCTTCTCTTAAATGTGAG
CAGCTGACTCCAAGCCTTGTGGAACTCTAGAAGGTAGAACCAGCCATCTGGGGAAGCTG
GCCTTACAGATGCCCCGTCTGGCATAGTGGGAGGTTCTGTGCTCTGAGAACCCAGTGT
GAATCTAGACATCCACTGCAGCCTGGGAAGAAGCCTGTGTTTTCTTTAAAAAGTCT

Sequence 1067

GCGTCCGGTCTTAGGGAGGCAGGTGCTGGCCTGGCCTGGATCTTCCACCATGTTCTGT
TGCTGCCTTTTGATAGCCTGATTGTCAACCTTCTGGGCATCTCCCTGACTGCTCTTCA
CCCTCCTTCTCGTTTTTCATCATAGTGCCAGCCATTTTTGGAGTCTCCTTTGGTATCCGCA
AACTCTACATGAAAAGTCTGTTAAAAATCTTTCGCTGGGCTACCTTGAGAATGGAGCGAG
GAGCCAAGGAGAAGAACCACCAGCTTTACAAGCCCTACACCAACGGAATCATTGCAAAGG
ATCCCACTTCACTAGAAGANGAGATCAAAGAGATTNGTCGAAGGGGNCNNAGTAAGGCTC
TGGACAACACTCCAGAGTTCGAGCTCTCTGACATTTTCTACTTTTGCCGGAAGGAATGG
A

Sequence 1068

TCGACCCCGCGTCCGGCTGGTTTTCCGTCTGGTGAGGGGTACTTCCGGGTCCGACGGCG
CTAGCTGCAGCATCGGAGTGTGGCAGTGCTGGGCTGGCCGGCGGGCTGGGCTGCGGCCCG
CGCGCGGCCCGCGATGCANGGGGGCAACTCCGGGGTCCGCAAGCGCGAAGAGGAGGGCGA
CCGGGGCTGGGGCTGTGGCTGCGCCGCCGGCCATCGACTTTCCGCGCGAGGGCCCGGACC
CCGAATATGACGAATCTGATGTTCCAGCAGAAATCCAGGTGTTAAAAAGAACCCCTACAAC
AAGCCAACCTTCCCTTTTGAAGTTTGAAACCAACTCTTGCTGGGTTTTCTTGCTGGAA
GCACNTTGAGCCCACTGTGCATGAACCA

Sequence 1069

CCGTCCGGGAGGTTGAAGTTCAGGCTAAGACCGTTACTGAATTGGTTACTAAGAAGAAGC
CAAAGGCTGAAGGCTATGCTGAGGGTGACCTCACTCTCTATCACCGTACCTCAGTCACTG
ACTTCTCCGAGCTGCCAACCTGTTGACTTCCTCTCCAAGGCCAGCGAAATCATGGTAG
ATGATGAAGAGTTGGCACAGCATCCAGCTACCACTGAGGACATACGGGTGTGCTGTCAGG
ACATCAGAGTGTGGGGCGCAAGGAGCTCAGGTGCTACTAACTGGAGAACAAAACCTTC
GGCGATATGTGGCCAAGAAGCTGAAAGAACAAGCAAAGGCACTGGACATCAGCCTCAGCT
CTGGAGAGGAAGATGAAGGTGATGAGGAGGACTCAACAGCTGGAACCACAAAGCAGCCCT
CTAAGGAGGAGGAGGGAAGAGGAGGAGGAGGAACAACCTGAACCAGACCTTGGCAGAAAT
GAAGGCCCAGGAGGTGGCGGAATTGAAGAGGAAAGAAAAAGAAG

Sequence 1070

GCGTCCGGTGTCTGGAGGAAAATGTTTCTGGGGAAGATGACTCAGTCATTTTGTGGCGAGA
CACCCTTTGGTAACTCCCACTGACCACTGCTGGGAGCCTTCTGGAATGATCGTGGGCTG
AGCGGAGATGTTTTTGCAAAATGAACTGAAGCTGAAAGAAAGGAGAATTCGAGTGAAC
CAAGAGAAATCCAAAGACCTGGGGAAGGAGGACTTAAGATGAAAGTGAAGCAAGAGAGGG
AAGGGGAAATGAAGTGAATGCGGTGAGGGTGTGAGAGAGGTTTGGGTTAGGAAACATG
TTTTAGTGCTATTTNCAACCAGGG

Sequence 1071

CACGCGTCCGGGACTGATCTCNAGGACCAGCACTCTTCTCCCAGCCCTTAGGGTCCTGCT
CGGCCAAGGCCTTCCCTGCCATGCGACCTGTCACTGTCTGGCAGTGGAGCCCCTGGGGGG
TGCTGCTGTGCTGCTGTGCAGTTCGTGCTTGGGGTCTCCGTCCCCTTCCACGGGCCCTG
AGAAGAAGCCGGGAGCCAGGGGCTTCCGTTCCGGCTGGCTGGCTTCCAGGAAGCCCTA
CGAGGGCCGCGTGAGATACAGCGAGCTGGTGAATGGGGCACCATCTGCGATGATGACTT

TABLE 1

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CACGCTGCAGGCTGCCACATCCTCTGCCGGGAGCTGGGCTTCACAGAGGCCACAGGCTG
GACCCACAGTGCCAAATATGGCCCTGGAACAGGCCGCATCTGGCTGGACAACTTGAGCTG
CAGTGGGACCGAGCAGAGTGTGACTGAATGTGCCTCCCGGGG

Sequence 1072

CCCGCGTCCGCGCGACGGCCGCGGCGGGACCTTAGGACCCGCGGGCTCCAGGGCTACT
GTCCGTCCGCCACTGCGCGCCAGCAGGTCTGGTCTCCGCTCTCCAACAGCTGAAAGGCC
GGCGCAGTGAACACAGAAACGAAAACCAAGAAATGCCTTATCCACAAACAAAGAGTTGA
TACTTGGCATCATGGTGGGCACTGCTGGAATCAGCTTGCTGCTCTTGTTGGTACCACAAGG
TCCGTAAACCAGGGATAGCAATGAAGTTACCTGAATTTCTTCTCTGGGTAATACATTTA
ATTCAATAACTTTTGCAAGATGAAATACATGATGACCAAGGAACAACAGTAATCTTTCAAG
AAAGGCAACTTCAGATACTGGAGAAGTTAAACGAATTCTGACAAATATGGAAGAACTCAA
AGAGGAAATCAGATTTCTTAAGAAGCTATTCCAAAGCTGGAGGAATATTTACAAGGATG
AACTTGGGAGG

Sequence 1073

CGCGTCCGCTGAGTTCNAGGATGGTTTTTCTTGGGACCAGACATGAACAAAAGTTGACC
TCATGAGCACTTCAACCTCTCCAGCTGCCATGCTCCTCCGGAGGCTGCGGCGACTCTCCT
GGGGCAGCACTGCTGTCCAGCTCTTCATCCTAACAGTGGTGACAGTTTGGCCTGCTGGCC
CCCCTGGCCTGTCAACGACTTCTACACTCTTACTTCTATCTGCGCCATTGGCATCTGAAC
CAAATGAGCCAAGAGTTCTGACAGCAAAGCTTGAAAGAGGGTGAGGCTGCCCTCCACTAT
TTTGAGGAGCTTCCCTCTGCCAATGGCTCAGTGCCCATTTGTCTGGCAGGCCACCCCCCGG
CCCTGGCTGGTGATCACCATCATCACTGTGGACAGGCAGCCTG

Sequence 1074

CGTCCGTGAAAATCCAAAGATGTATCATTTTTATTTGAATCCATCATGCAGTGACATTT
CAGATAATTTCCCTTCAGTCTCCAGATAGGAGTGTATCCAAACATCTAATTTTATGTGCAC
TGTTATCTTATATGAATGTTTTATTTTATATACCACATGCAAAAATGNCCATATGCACT
ATTTAAATGTTTTAAATAATATATTCCTTCTTTATAATGCTAAATCTATATGAGTACCAT
ATTTTTATAAGTCAGTGGTCTGACNNGNTTCATTTTTNAANTAACNNNNGCTTCAAAATG
GGTATTCAANGNAAAAAGGTGGNTGTGAGGAGAANATGTAAAGNNGNNTGGNGNNTCT
CTTTTGCTTTGGGCCAGGAATTNNGGGGGGCAAAAATNNACCCANAACCTGGNNNAAN
TAGGNCCANTTGGGGGNGANAGTTTTCACTTTGGGGCNCAAAAANAAAAANCCCGGGTTT
TTTNTNTTNNCCAAATANATTNTTTTTGGGATTTTTTTTTGTNCCCCCCCCGNATTAA
TGGGGANTTGGCTGGNGTCTTGGCNCCTNTCATTTGTGCCAGACCTTTTTTTTATTA
AAGAACCTTGGGAAAGGTCTTAAGTNCATTTGGGAAAAAAAAAAAAAAAAAAAA

Sequence 1075

GAGCCGNCCACGCGTCCNCGGNCGCGTGGGCTACCTTGGAAGCAGTCATCTCTCAGTCT
TACATTTGGAGAATGTGGATGGCATGACATCAGAATTCCTTTATATAATTTAACTTCAGA
ATAGTCTGAGATCATCGAAGCACGATGGTCAAGGGAATTCGTTTTTTGTTTAGAGCAAA
TATGTTTGCTGTTTGTCTTTTCATCACAACATCAGTGGAGTTTCAGCACCTTACAGAGCT
CAGTGAACCCCTGGTCACCATCAAAGTTAGCACACAACAAAGCCAACCACGTGTCCCCC
TCACAGATGACAATGGCTGAACTCTGAGTGAAACCACTGTATGGCCGGGCACAGTGGCT
CA

Sequence 1076

GCCCCGCGTCCGCTTTTTGAGAATCTCTGCTCTGTTCTAGGTTTCAGTGCTGGGTCTGG
GAATACAGCAGGACAGACCTCAGCTTATCTCTTCATAGAAATTATACAAAGAGAATTGGG
GAGACAGCTAAGAAGAAAACAAAGAAATAAAGCAGTTACAAATTGTGATAAAGTGCTTTT
GAAGGAAAGAGGGGTCTGAGACAACAACAGGGAAGGGGCCTCTCTTGAAACAGTAGTTG
GGAAGGAGGCAGACATGCACCACTGATGTGGTGACAGGTGCTCTGAAGGAGGTCAACAGG
ACCTGACCTCTTTGAAGGATCAGAAAATACTTCCCTGAAGGACTGACATTTGAGCCTAGA
CCTGAAGGGTGAGCCATCAAGCTAAGACAATTGGGGAAGAGCATTCCANGGAGAGGGAG

Sequence 1077

CGCGTCCGATCTTTGTCTGCTTTCCTATAACTCAGTACTGTAACCTCAGTACTCTGAAATA

TABLE 1

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GTTTCCTTTGTTAATAGAGTCACTTTTATAGTACTGNGCTTGAGGNNATATACAGAGTAT
TGTGTCCAAATTTATCATTGCACAAAGTGTTTTGGAAATCTTGTTACTCCTTAGTAA
ATTACCTGTAATTGGGTAAATGCTGGTAGGGTTTAAATCTGATTGCTAAAGTGAATTC
TCTATAAAGTGAGTTTTGATACATAGAACTTTNCATATAATTCTTAAACTCATGTGTCA
TGTATTTTCATTTATAGTTTTTCATATTCATTAACATATGTTGTTCCCTTACCATTTCAG
CTCANAATTCTGCANATGCAGATTTTTGCAAACCTTGATGCATTTGGACAGTCTAGTGGT
TCGAGTAATTTTGGAGGTTT

Sequence 1078

TNCGGGCGGCTGCGGCGGGCGGGCAGGCGGGCAGGCCGGCAGGCGGGTGC GCGGAGGGCT
GGTACCCCTNAGCAGGTGGGCGGGGTGCGGTTGGNGGCGGCGGCTGGGCCGGGGCTGCC
CGGCTGCGCTCGGGCCGTGCGCGGNGGCCGTGCGGGCACGCCATGGACTTCAACATGAAG
AAGCTGGCCGTGCGACNGCGGGCATCTNTNTTACCCCGGGCCGGTGCANTTCACGGAGGA
GAAATTTGGCCAGGCTGAGAAGACTTGAGCTTGATGCCCACTTTGAAAACCTTCTGGCC
CGGGCAGACAGCACCAAGAAGTGGACAAGAAGAAGATCTTGAGGCAAGACAAGAGGTGCC
TGCTGCAGCCCCAACCCAGTGCCCCGAGTGGAGGGAATTANCTGTATGAAGAAGCTTG

Sequence 1079

CACGCGTCCGTGCTGAGCGGTCCCGAGGGGAGGGGGCCTGAGGCCGAGTCCAGTCCGTGA
CCCCTAGCCAGATCAAGTCCATGGAGAAGGGGGAAAAGGTCTTGCCTCCCTGCTACCGGC
AGGAACCTGCCCCGAAGGACAGGGAGGCCAAGGTGGAAAAGGCCAGCACCCCTCCGTGAGG
AGCAGCGTCCCTCTTCCCAACGTGAGCACCGAACGTGAGAGACCCAGCCTGTCCAGGCCT
TCAGCAGTGCATGCACGAGGCTGCCCCCTCCAGCTCGAGGGGAAGCTGCCATCTCCTG
ATGTCAGGCAGGACGATGGGGAAGACACCCTGTTCTCGGAACCCAAGTTTGACAGGTC
AGCTCAAGTAATGTCGTCTTGAAGACGGGATTTGATTTTCTGGACAATTGGTAAAATGTA
TTAGAAAAATACAATGAAAGAACCCTAAAATGTTTTCCAAAATGGTGTGGTGGAGGAGGA
TAAAAAAGGGCCACCTTTTCTATGTATTTTACTGGTTTCTTGACACTCTTTTCTTAATC
ATTTGAAAAGTGGTCAATACTGNCAGATTTTTT

Sequence 1080

GTAAGCCAGGTGCTCCCCCTTCACTTCCTGTGTGCGGAGCACGCTCGCCCTGGGAGTTTC
ACTAGAAAGAAGGTTGCCATGGGCCAGTGGGACAGCTTGATCTCAAGTGACGCGGATG
CCCCAGAATCCAGGATCTCAGCTGAGCTGTTTGTGGATTATTAGATCTGACTTAAAAGA
ATATTATCCAGCAATGCAAATGAACAACTATAACTACACACAGCTGCATGGATAAATGT
CAGAAACATGACGTTGAAGTGTGAGAAGCCAGATGCAAACCGAGGACTCACTGTGCAATT
CTGTGCATGTACAGTGGCCAGGAGAAGGGAGCACTGGCTTTTGCTTTCATCAGGCCAAAG
ATGCCTTTCTTTGGGAATACGTTCAAGTCCCAAGAAAGACACCTCCTCGGAAGGTGCGCA
TCTTTCTCCAACCTGCATTCTTTGGATCGATCAACCCGGGAGGTGGAGCTGGGCTTTGAA
TACCGATCCCCCGACTATGAACCTGGCAGGGCAAAGCCTGAAAGTTTGAAAAT

Sequence 1081

TGCTCTCTCACCTGTTAGCTGTGTAGCATTGGGCAGGTTACTTAACCTGTCTGTGCTTCA
TCTGTGAAACAGGAATAACAGCATTATTAAGGATTGTTTTAGGATTGGATGGGTTAATAG
ATGTAAAGTCTTAGAACTATATTGAGCATCCCATCAAGGCATTGTATTATATTGAAACAA
TGGGGTTTNTTCTCTTTATNCTTTTTTAACTATATAATGAACACTTTTGATCTTAAGT
ATTNCTAA

Sequence 1082

CCCGCGTCCGGTGAATGTTAGTATTGGGTGTGGGATGCATCAGGGACACAGGTTTGTA
CCATGACAATTCAATTGTAACAACTAAAGCCNAGTGCCCCCTGTAGTCCCAACTGCTGGGG
AGGTCACCTTGANCCCTAGGGGGGGAAAAATGCAGTGGACTGGATTTTNGGCCCTTTGCAC
TNCAAACCTGGGTGACATAGTGAGGCCCTTGCTCTTACCANAAAAAANNNANNANN
NNANGGTGCCGGGCCGCTTAGAACTAGGTCTTAGAAGAAAAAACCTCCCAACCTTC
CCCTGAACCTGGAAAACATNAAATGGAATGCCAATTNGTTTGGTTGGTTAACCTTTG
GTTTTATTGCAAGCTTTATAAATNGGGTTTACCAAAATTAAGGCCAATTANGCCATTC
ACCAAAAAATTTTCAAAAAATAAAGGCCATTTTTTTTTTACCTGGCATTTCTAGTTT

TABLE 1

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NNTGGGNTTTTGGTCCCAAAACCTCATCNAATGGGTANTCTTAATCATGTCCTNNGGGATC
CCCCCGGGTTACCCGGAGCCTTCGGAAATTAATTTCTTCTTTCCGCTTTTCTTTCGC
TTCATTGACCTCCGCTTNGNCTCGGGGTCCGTTTCCGGGCTTG

Sequence 1083

TCGACCNCGCGTCCGTGGAGGGCCCATCTGCCAGAGCCTGGAGTCTGCGAAGGCCGGGAC
CCGGTTCCCGGCCACAGTGGGGGTGTGCAAACCCGAGAGAACTGGGAAGTGCCGTCAG
AAGCGATAACTGACGACGTCTAATGTCTATCTGACCGCAGTCGCTGAAACCTCTACAACT
TAGTTGACCGTAACTGCCAGAGCCCTGCCCTGAATTCCTGTCTTACTCCCTCTTTAAGA
TTGCGTACCCACTGCAGAGTGTGAAGACGGGGTAGCCACCGAGGTTGCAAATTCGTGAA
GAATCAGCATCATGTTTGGCAGCTGAGTATTGGAGCCAGGAGCCTGCCATGAGGTTTTGA
GAACAGAGTGTCTGTTTATAGAGCTGGCAGCAGCATCTCAGCCCAAGAGAAGGTTATATCC
CAGAGGATGTCAGTCCCAAGGACCAAGTAGCTGCCATCAGTTTGGATTCTGAAAATAAC
TGGCATCAAACCTGGGTGTAGAAACATG

Sequence 1084

CGCGTCCGACTGTCGCTCTAAAAGAATGAAGGAAATAATAAAGTGATAGACAGGGAAGG
ATAGAAAAGACTTAACAATATACATATGTTCCGTCTTTGCTGTTTTGGAGAATGATGGAT
AAGTANGTGTTCCTGATTCTGAAGCATAGCTGAACAATTTAATTGTGGTTTACCATCTT
TTTGGTCCCTCTTCAGTAATTAACCTATCGAAAATCTGTCCTAAATGTTTGGACTGGGG
CACAGTCCCTCCATCGCTTTGGGAGAAAATCATTAAATATGGCATACTGCAGATTGGAGG
GCAGGACCACTGAGGGTGTCTAGACATTAGCTCTATGGAATTCTGCTAGCAATTTCCAA
GTGACAGTGAGGAATTATGGATATATGTTTGAAGTCATTCAAGCTTCCTGAGTACCACAT
TCCCAGCTACTTAGACACCGGGTTAAATATTAAGATGTCCTAGTTCAACAGCTTGAA
TTCCATTGATTGGAT

Sequence 1085

GACCCCGCGTCCGGCTTCCTGGGTTGCGAAAGAACCCAGTTCAGGAGTTTCTGTTTTAGTT
TGAGATCTTATAGGCCTGTCTCATCAGGTTGGTGTGAGCCAGCTAGGATTAGGCAGAAT
TGGGTGGGGGCTGTAGTGCATCTTTGGCACAGCATGTACCTGTCTGACTAATTCCTGTG
TTTTCTTTCTGTTGCAATTCATGGGTCTTAGCATCTTCTGAATGGTGTGTTAGTAGTCA
TCCTGTTGATTTCTGCTAGGGAGTAGCATACTCTGGCTCTGTACCATTGGCCAAGGGAC
TTAAGGATAGGTGAAGGGCTGCAGTTTTGTTAAATGGAACAATATGAAGAGATGGCATTG
TAAAAAACTTNTGNCAACTNAA

Sequence 1086

TGTCGCCCCGCGTCCGATCAAATCTTGATGAAGGATTGTAGATTTTTGCTTTTTCTTTT
GTTTTTAAACTTATTCCAATTGCTAAATTGGTAGTTTTTCACTCTTATAAATACAGGA
TTAAAAATATATACAGTTATATGAAATGTTTATTTCTATGTGTGTGCATATAGTTCA
ATATTATGCAATAAATTTGGTGTTTTAACTTAAACTATTTCTTATTGTACTTGCAGAAT
GGATAGCTTGCTTTTAGTAGAAGCATTAGGTCGTATACTCAGATAATCTAATAGAAGGTC
AGATTTGATTCTGCATAAGAAAGTAGAGCCCAAGTGCTGCAGAAATGGAGAAGAAAGCA
GGGGCAAGGGAGCAGATGGCATTAAAGGAAGAATGAAGTTTTTGAAGGTTGGGGATGGACG
AAAAGGGTGTCTCATGGAGAGGGGATGCTTTAGCAAAGGCTCAAACATTGGGGCATAT
TAGGCAAGAGCCAAGAAACAGTTTGAAGGGGAACATCAGAGGAAATAGGCCAAATTAAT
AGTAAATN

Sequence 1087

GGNGTCGACCNCGCGTCCGGAAATACTCAAATAATGCAACATTACTTCCAGAAATGAAA
ATACATTGCATCTCTTATTGAAAGAGCCAACAGAGGCAATGAAAAATAAATGTACACATA
TGTGACCCTTAATTCTTTATAATGAACCTTGAGAAATCAAGGCTTTAGAAAAATGCTGA
GAGACAAGAAGCTTCTGAGCAGCAACACTGGATGCAGGAAAAAAATGGAGTAATAAGTG
TAAAGTTCTGAGGGGAAAAAAATATCAGAACCTAGAATTCTAAATTTAACCAAATGTC
ATTAAGTAAATGAGAAAAGTAAATCTTTTGAAGAACGCAGAGCCTAGAAAGGATTACT
AATCGGTAGGATCATCTTTTTTTGTTTGTGTTGTTGGNTTGGGGACAGACTCTCACCTCT
GTCACCCAGGCCTAGGTTTGCAAGTGAGCCCAGGATTGTGCCACTGCCCTCCAGCCTTGG

TABLE 1
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GGGTGACAGGAGCAAGGACTTCATCTCAAAAAAAAAAAAA

Sequence 1088

TCCCCCTGCCCCCAAGCTGAGGGAATAAACTCTGCCTGTCGGGTGCCCCACCAAGGGA
AATAAACATGGCCTAGCTGCCAAGTCATGCCTGTAGGGTGCTCTCTACTGGCAGTTTCTG
GGTGGTGACATACATCTAGTCTCCCTAGAAGAGCACAGTCCAGAATTGAGGAGGTACAGCA
GAAACAGACTGCAGGCAGAGAGAGGTCTCATAGAGCTTGGACAGGGCTAGGCACAGAAAG
AACAGGCAGCGTATCCAGAAGGGGGCAGGGAATGGGTGAAGAGGTTGTGCTCTAGGGCAG
AGCTGAGCTCTGATCTAGAAAGACAGCAAAGATACCTGGAAGGCCTCCCGATTCTTGCG
TTGTTGGCGTCGCTCCCGAAGCCGGG

Sequence 1089

CGNTCCTTGGGTAAAAGCGTCCCAGAGACGGGAAGAAATATGGTATAAGCGAGAAGGCCT
CATAAATCTGGGCTGTTAAAAATCTAAGTTAAAAATATGTTTAAAGTCAGAAAAAAAAAA
AAAAAAAAAA

Sequence 1090

CGCGCCTGGTAAAATTATATAAGCTTAAAAAACAAAAACAAAAACACTTGCTTTGAAAA
GAGTCTCTCAGCAGCAATTTTGTCTTGCCCCTACTTCCACAGTTCCTTTTCTTACCATT
TCACATCTGGATTACTACATTGGCCTCTTTGCTTAGACTCCCAATATTCATTGCTTTCC
TTCACCCCATTTTATGGAGGACTGTGAGATCAATCTTTTAAAGATAAATTTTATAATGTT
ACTACTGTTGCCTATTGGATTAGAGCCCTAGGGGTGCTTTTTGTAGTCTCACTGACAGCT
GACATTAGTGATTTTTTACCCTCTTCTATTGCTACCCTGTGTTGATGGCCAGTTTCCAG
GTGGGCACCTGCTCCACTTGCTTTTCA

Sequence 1091

GGGGTATGTGTGGTTCTTCCAGGAAAGTGCTGAAAATATCACCCAGGCCTCTGCGCCACG
CCCTGGGAGAGTACACTCCTGGGCTCACGCCTCTGCATTCCAAGGCTGACAGCTAGAAAT
ATACTTTGTAAAATACCAACAACCTTATTCACAAATATTCCAACTATCTACCAGCTCCAAT
GAGCTTGCTGAGGATGGGTATGACCCAGTCTAAGGGGAAAGAATCTAAACACAAGTAA
ACCTGTTTAAAGGCCAGATCTCCAGATGGAGATCCAAGCAGATGGCGCCTAAGGTTTGCC
CTTGAAAACCTACCAAGGAAGCCACAGAGAGGGATCTTTGGACCTTCTGGAAAATGGTAAG
GCCCCAGGTAGATTATGGCTCCTCTGCCCTGGAGGCTGAGCCGCCCTCTGGTTACCTCAC
ATCTTCTGGTTTCTTCTGAGTGGGACTTGATCTCATTCTGCATTACAGCAAGGNGGAA
CTGTCTGGCAAGAGCTTAAATTAGGACCTGNTGGTGGGGACCTTTAATAGCAGGTGGAG
GGTTTGAGATCCCNTGAGATGCCNAGATTAATTCAATAGGGGGGANGAAAGATTTGCCCC
AATTCAAAAGNGCTTAAAAAAAAATTTT

Sequence 1092

CGCGTCCGGTTCTTTGGTTGAGCTTCTTTGTATCAGTAACAAAAGGAAGCATCATTCACT
CTTTCTTTGTAACCTAATGTAAGTCTCTTTGTACATCCTATTACTTCAAATCATTGAAG
TGAACCTCCATTTTACATCTGTTGGGAACAATCATCTAGCTTCTTAAATGACTCATCTTA
AAATATGAATTTTAGACTGCCTAAACATTCTGAGGGAGTACAGTGTGATATAGCAGAAAC
AACCGGGGCTTAAGAAGGATCAAAATGAAAGGTTTTGTGAAGGATGTGCCAGAGACTGCT
CTCTGTTACACAAAACCATTTCTTCTTCTTCTGCGCATAGAGCCAGACTAGATTTCC
AAGCTTTCCTTGCAATTGAGCTCTCAGAGTTCTCGTCATTAGAATGTGAATGATAGGCCG
GGCGCAGTGGCTCATGCCTGAGATCCCAACACTTTNAGAGGCCAAGGTGGGTGGATCACT
TGAGGTCCAGAGTTNAGACCAGTCTGGCCAACGTGGTGAA

Sequence 1093

CGCCCCGCGTCCGATAAACTGGATTTGATTTCTTTTTATGAAANGTTTCATATGAATGT
AAGTTGATTTTTTACTATTATAATCTAGATAATATGATATAAGAGGGCTAAGAATTTTTA
AATTGAATCATATATATGATATAATTTGATCCTTCTTGATCTTGAAGTTTTGTACTTGG
GATTTCTGGACTGATAAATGAATCATCACATTCTTCTGGTAAATATTTTCTTGGAGCTCT
GTGTCAACTTTGATCCTTTGTCTCCCAGGAAGGTGTGACCTCTCCTTTGCCTGCATACCT
CAAGGCCAGGGGAATATGCCTCAGTGATGCATTTATCTTTGTATATCAGGCCGCATGATT
CCCAACTTTCTGCCACACTTAAATTACGTTCTCCATTTCAAGTTTTGTCTTTTCTGTCTA

TABLE 1
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AAGTTCAGTCAAAGAGTATCAAAAAATTATGTTTCAGCTAGACTGGTGTAAATGTATAAGT
TTTTGTATCTTGTATTAGAGGATTTCGTAGCTTTTATTAGAGG

Sequence 1094

GCCCCGCGTCCGATCCCTAGATGACATAACAGCCTTACAAAAGGACAGGGAGGAGTGTCT
GTTCCCTACTCTCACATAGCGGAGGAAAAGTTAGAGCCTCTCAGTCTCTGTTTATGAGGACT
CATTAACTCAAATAATTGATGCATTTTTCATACATTAGGGTCTCTGTCCATGTGTCTTC
CTGATATTGTTATAGAAATGGCTTCAGGCTGCTGGTAACAGATGCTGCGGAAAAAGAATG
CCTTAAACAAAGCCAGGCGCGGTGACTCACGCCTGTGATCCCAGCACTTTGGGAGGCTGG
GGTGGGAAGGATCACTTGAGCCTAGGAGTTAGACACCTACCCAGCCTGGGCAACACGGTG
AGACCTCGTCTCTACAAGAAACAAATAATTGGCTAGATGTCGTGGCGCACAAAGCTTGTGG
TCTCGGCTACTTAGGGGGCTGAGGCGGAGGATTATTTGAGCCTGGGAGGTCAAACTG
CGGTGGGCTGGGATTGCGCTACTGCACTCCGGGCTGGGAGACCGAGTANGACCCTGCCTT
AAAAAAAAAAAAAAAAAAAA

Sequence 1095

AGTCGCCCCGCGTCCGCTCATACCCAGTGAATCTTCAACAGAATCTCTTAAAGATCTCCA
GGAAGTATAAGCTCTCATTAAATGTTTGAGTTAGAAGAACTTATTCTGGGCCTTTAATTTG
TTGCATGTGCTGTACTTAAAGCATCCCAGATAATTTTAGCTTATATTTTCATAGTGTTTA
TACAGAGCTTGAATTGGAATGGTCCTTTCTTCTTGCCTCAGTACTTCTTCCATAATC
TTTCCTGCCATAACCATTATTTTGCACCATTTCTTAAACACTTATGTGGCAGGCATTA
TGCTAGACTGTAATATGTTTTTTTAAATCCAGTTGAAGTGGATGTGGGAAGGTATTAGA
AAGTAGAAGAAAGTATAGTCTAAATAGAGAGGAAAGAAAGGAAGAGAAAAGTGGGATAT
TTCAAAACCATTTGCGCAGAGGTAGAATGAAATTCGCCAGAATGGGAATCTCCGTATTTCT
TTTACAAT

Sequence 1096

GTNGCCCCGCGTCCGAGTNAACAGTGGTAGTNAAATTCAGGGTTGGTAAGTTTTTCCATA
GAAGCCAGATGGTAAATATTGTAGGCTTGCAGACCATGTGGGCTCCACGACTCAACTCT
GCCACAGTAGTTTTGAAAGCAGCCACAAACAGCCTTGGTGTGACTTTGTTCCAGTAAACTT
TCTTTATAGAATGGGAGAAAAATTTTGCAACAATGCATTCAACAATGGCCTGATGTCCA
GAATTCATGAGGAACCTAAAAAACTCAACAACAAAAATCACCAAATAACATTTAAAAAGTG
GGCAAAAGATATGAATAGTCATTTTTTCAAAAGAAGACATACCGAATGGCCAACAAGCATA
TGAAAAAATACTCAACATCTCTAGGCTTTTCAAGAGGCATGCNAANTAAACCNCATTNGA
TATTATNTTACNNGANCCNAAATGGGTTTTTTTTTAAAAGGCCAAA

Sequence 1097

CCCCNCGCGTCCGTTNAAGTGTGCTTTGGAAAAGGGAAAAAGTCTAAGTAGATATAAAA
CCCTAACTAAGGAAGAAAGCAGGTAGCAGTGGTGGTCCAAGAGACCGTGTAGTGGATGCA
AGGACCGCTCGTATTTTACACGCTATATTTTCAAGCAAGGGTGGCCCATCTGGCAGGAAGA
TGGGGACATATGTCACATATAGAGCAGTTAAGGAACTAGGGAAAGTGAAGACTCAGAAG
ACCTGTCTTTGACCTGGTATGTTCTATCTCTACAGAACCTAATATGGCTTATACATACTG
CCACAGAAAGGACTGAGGTAGACAGTGGCAAAGACTTCTAGGAGTTGAACCCCTGAAAT
TACATAAGGAGTAGGACCCCAACAGAACTGTGCTTTGTAGGCTGCTGACTGCAGAAGAA
ACGGTGTAGCGGAGGCAGGGGGAAGAGGAGTCAGNANAGTACACTGGGAAGGAAGAAACG
GGTCTTTTCTCTT

Sequence 1098

TCGCCCCTGGGCCCTCCTAACCAACCAGGGGAGGGGAGAAGGACCCAATTCTTTTCCTTT
GGTGCACGTAGCCTGGACCCGTTATGGACAGAGGCCAAAGGAAGATAACAGTGTGGTGTC
CAGAGATGAAACCAAGTGGTTGATGGGCAGTTCTTTGAGCAACCTTGTTTATGAGCCTAT
TGATATGCAGATATAGAGGCATCCAATACTATTGACTAATTTAAATCTTATTCAAGTGAG
TCAACACTCTAAATAAGCAATGGAGATGGTTCCATTCAATTTTTTGAAGTATCATTTTT
ATAAACATAAATTTCTGAGATTTTTGTTTTTCACTTATAGCCTCTGTGGAGCTGCTTCGTG
GTTATGATAAGTGCTGTGTGATGCTCACCTTGGGAGGTCTGCGACATATATTGAAGTCAT
CTCTAACCTGAAGTACTGACAGACTTTCTGGAAGAAAAGGCTTGTAGGAGGAACTTCAG

TABLE 1

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AATTCTATTAAATGGTGTAAATGATGAAATTATAGTTGATATATGCTAGAGCATCAGTGC
TGGGTATTTTAGAAGGGATGGA

Sequence 1099

CGGGCCTGTTCTAGAGCCTCATTGGAGACATTGACAATGCCATGAGGACCTTCCTCAAC
TACTACACTGTATGGAAGCAGTTTGGGGGGCTCCCGGAATTCTACAACATTCCTCAGGGA
TACACAGTGGAGAAGCGAGAGGGCTACCCACTTCGGCCAGAACTTATTGAAAGCGCAATG
TACCTCTACCGTGCCACGGGGGATCCACCTCCTAGAACTCGGAAGAGATGCTGTGGAA
TCCATTGAAAAATCAGCAAGGTGGAGTGCGGATTTGCAACAAAAGATCGCTTTGGCTGC
TTTGTGAAGAATAGATTGAAAGGGTCAAAGGTGAGAGCCATCTCACATCCATGCAGGAAC
CAAGCAGGCAAGATATAAATATGAAAGTAGAAGAAAAAGTCTGGAAGAAAAATCCC

Sequence 1100

CGCGTCCGGGAGTGACCCCCAAGATCTAACAGCTGTTTCAGAGCTGCTCATTTTAGAGTG
ATTGGTAGGGAGTTGGTGGCTCAGAGGTCTAATCAGAATGTGTCTGGGTTCTGAATGA
CTAGCAGACTATCATTAACCAAATAAATTATGGGATTTTGTCTTAATTATATACATATAC
ATATACACACACATACACATACACATACATGTGTATATATCCCTAAACCTTAATAAAGC
TCAAATAATAAAATCAGATTTCTTAAGTATTCCAATTCCTTTAAATGTAAATCAGATT
TTATAATTCTTTGTTCAAACTGTCCATTGGCTCCCATTTCACCTAAATCAAAGCTAG
TTTTTACAATAAGCTAAGATAGCAAACATTATTATCTATTTACTTATGAGTTACTTATGT
AACTCAAGCATCCAATAACACTGTAGGGTGCTCAATAAAATAGTTGCTGAATGGATAACT
TTC

Sequence 1101

TGTTTTACGACAGAGCTTAGTGACGCCNGTTCTTGATGGCTGTGCAATGCTTTCCTTTTA
AGAGTGGAGTTAGCCTCGTCATAAAGCGTGTTTTGAGTCTGTTGCAACGGGTCAACAAC
GAAGGGAAGTTTCAGGCAGATCTTGATGCCTGGCCCTGGTGGCTGCTTTCATTTCCTTC
CAGTATCAGTGCTAAACAGGAATGAACATGTTCAAGCCCCGTCTCACCCACCTCTGGCAT
CTTCGCCCTAACTCTGCCCTAGAAGACCTTTCCTTCCGTATCGTCAAGAAAATCTGAAGTT
GCTGTTTCACTCCTTCTCCCACCCAGAACTTCGCTGCATCTTCTGGATCCCTAGCTCC
TTGCACCCATGATCCTGTCTCCTTCTCAGCCCCGGCTTCTGGCTGAGCAGCCTGCACCTG
CTGTCTTCACTCCTACACGCTGCCCCCACTCCTACACGCTGCCCTGCGTGCTTNTCACT
TCTCTACCCTTCC

Sequence 1102

GTCCGTATCCTATCTTCAAATTTTTTAAATATGTTCAAATATCTGGAGGGTGAGAAGTT
ACCAAGTTTGTATGTTTTGTTGACTCACCATCTTTATTTCTGTATATGTAGTAGCTGG
CAATTGCATATATTTCTTGATTAAACATATTAGAGACTGCTTCCATCATCTTATGTAAAC
CTGGAAACAAGCTGAACTAGTCTTTTCTGAAGAACCGTGATCAGTGTTAGATGTGCAT
CCCGTTTTGTCATTCCCTCAGACTTTGAATACAGTCATTACTCTCTGGAAGAGAAATGTA
AGTATATTTTTTGTATCTGCAGTATGGTTTAAACATGTATTAATAATACACATATGCAGA
CTCACTAAAGTATCCCCAGTAATTAGTAAATTCAAAT

Sequence 1103

ANTTGGGTACCCCCGGCCNGGCCAGNTGCGCGCGGGCGGGGCATGCTGCTCGTCCCCCGC
GCCCCCGGCCCGGACACTTGCGGGGTGCCACGAGGACCCGCGAGCAGCACTGCGGTCCCC
CGGCGTTCCTGGGCGTGTTCCGGCCCGGTGCGCGGACCTNNGCGGGAGTTGGGGCNTGGG
GGGCGGCNGCCGTTGGTNCGGACAGNCNGGTGCGCACTTGGGCCCCCNTGNCCATGGCN
GCAAAGGTGGACCTGAGCACCTCCACCGACTGGAAGGAGGCGAAATCCTTTCTGAAGGGC
CTGAGTGACAAGCAGCGGGAGGAACATTACTTNTGCAAGGACTTNTCAGGCTGAANAAG
ATCCCNACATGGAAGGANATGGCGAAAGGGGTGGCTGT

Sequence 1104

TGCCNCGCGTCCGAGCATCTCAGGTAACAATTTGAGCATAACTTTAACCATAACTTATGA
TAGCATAATAACATTCATTAGTAATTCAGTAGCCGTATGTGCCAGGCTGTGTTAGGTGCT
TTATATATTGTTTAAATTTTAAAACTTGTTGAGTGTACAGATTGGTAAGGTGACATTGT
ATCACAAGCTAGTCTTTGAGTCCAAAGTTTTGTGGTTTTATGTTATGATATACTTTAT

TABLE 1

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CATGGAATTGTCTTATTAATGTTTTGCCAGTGGTTCTTAAAGTGTGTTTCTGACACCAG
TAGCATTGACTTCACTTAGAAACCTGTTAGAAATACAAATTATTTGGCCCCACCCAACAC
TTGAGTCACAACTTTGCAGATGGGGCTCAATCTGTTTTAACAAGCGCTTCATGTAATTT
TGATGCAGGCCTAAGTTTTTGAGCCCTGCAGTATGCATTTCTATTTTAAAGCAAAGATCT
TGGTCTTTCTTTTGGACATTGTAGAAATAACATGAACCTGGTTTTTGGTTTGGNNTTTG
NTTTGGTTTGGT

Sequence 1105

ACGCGTCCGCTCTGGTCAAGCAGGCGGTACTTCTCCTTGGATGTCTCAGCCACAGTGCCT
ATCAGGGTACTGAGGGAGAGCACACATGGCCGAGGCCCTNGGAGCCCTCGGAGGCTGAG
TCAAAAGAGTCTCCCTCGAATTGGTGGGCCTTTAGAAGACTTGGCTTCTTCACTGGAGAG
CTATAAGTAACACCACACTGAGGGCCCTCGTCCCAGGAAGGCCTTCAGAGCATTTTCA
TTTCTGAACACGTCCCCTCATCTTTCAAGATTTTCTGGTCTCTAAAGCTGAGAACTAC
AAGCACTGAAATGAGATGAGTTTTGATAAGGATGGTAATGAAGCACAAAAGCGTTATTCA
CATTACTCACTGACTTTAATATAATTTTGAATATTTTCACTTTTGA AAAACAAAATAG
CCTGGGCGACAAGANTGAGACTCCATCTCAAAGGTAAAAANAATTTAANCTGGGTGCCNG
CCGCTTGACTATGTCTAGAGAAAAAACTTCCACA

Sequence 1106

GACCCANAGAAAAGNGCCAAAGGGCATGTCAAGCAATTGAAGTTAAGCTCATGTTTTTA
AAGATCCGTTTATTGAGATGATTTTGAAATGCTCCTTTACCATTCAATTTAAAAATAA
AGTTTAACAATGGTTTAAATTCANAATGGATTAAAATGGAGTTGGGGGTGGAAAGTAGAG
CCATTCTTAGTAAATATAAATAACTGAAAAGTTCTTCTGAGGAGACTATGTACCGAAGTT
ATCATTGCATCTTTCAGTATAGGCAGATCTCTCCCTCATATAACCGGATGTTTCTTGGCG
CTTGGAATATCAGATAAAGGTAAAGTTTAAAGAACTTCTCTAGCGGGGGATTTAGGGAAC
TTCTTAAACCTAGAGTTAAAAGCTGTTGCGTGTTGTTGTGTTATTTTAGACCAATCAA
CTTCATAGGCTAGACTAGTCTAGA

Sequence 1107

ACGCGTCCGAAAATTACAGGGTGTGTTGGCACACGCCTGTAATGCCAGCTACTCAGGTG
GCTGAGGCATAAGAATTGCTTGAGCCTGGGAGGCAGAGATTGCACTGAGCCGAGATCGCG
CCACTATACTCCAGCCTGGGCAACANACATCCTGTCTCAAATAAATTAAATTACATTAA
TGTTTAAAGAAGTCTAATAAGATTCATATGCTGCCCTCCCTCAGATAATGAGGGAAC
CTGGGGTACTTCTGGGCTACTCTGGGGGACAAAGTATAACTATTCAAATGGCAAGTTGAA
TTAGTACAGTCTAGGAGCCTTGAGATGGCTTCTTGAAGAGGTAGAACCTGAAATTCTC
CTTCCTTGAGGGACGNCAGGATTTGGCCAGATGGAAAGGCAAGTGGAAGGCTTTGCAGG
GACAAGCAATGTAANCAGANCCTAGAAATGG

Sequence 1108

TCGACCCCGCGTCCGGNGTAATTCTAGGGGAAATNATATTTCTGAACAACAATGTTGGTT
TGTGCAGGAAAATCACCAAAGAACATGACTAGAAAGTGTATAGCTACAGTTTCCCTCTTT
TAAATGGGAATAGCAAAACATATAAAGAATATTGATAGGCCGGGTGCGGTGGCTCACGCC
TGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGATCAAGAGGTGAGGAGATCGAGAC
CATCATGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAATACAAAAAATTAGCCGGGC
GTGGTGGTGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATGGCGTGA
ATCCGGGAGGTGGAGCTTGCAGTGAGCCGAGATCGCGCCACTGCACTCCAGCCTGGGTGA
CAGAGCGAGAGACTCTGCCTCAAACAAAAAAGNNAAAAA

Sequence 1109

CCGTCTCTGGCTTGCCAGGTTTAAATTAATAAAAATGAAGATGAAAATAAGTTGTCAGA
TTTAGGATGTATTTAGAAACCCAACTGATAATTTGCCAACTAATTGGATGCAGAGAGTA
AGAGGGAGACTCAAGAACACCTCTAAGATTTTACCCTGATCAATGGGATAGGTGAAAGT
ACATTAATGGAGATTGAGAATCCTGGTGGAGGTACAAGTTTAGGGTACTGAAGAGTGCT
TTTGGACATGTGAATTTTGAAGCCTACTAGATTCTCCAAATGGAGACATAAAACATAA
TTGAATACAAAAGTCAGGAGTTCAGGAGAGGGCTGAGCTAAAGATACAAATTTGATAGAC
ATGAGCATTTAAAAAACTGCATGAAAATACTAAAGATAGGCTGTCCTGCCTATGGAAT

TABLE 1

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AGCCATTCTTTGATCCCTTTACTTTCTTAATAAACTTGGTTTCACCTTACTCTATGGACT
TCCCCCAAATTCTTTCTGTGTGAGGTCCAAAACTCTCTGTTGGGGTCTAGATCAGACC
CTTTCAAGTACATCTTCTGATGAACCACAAANGGATTATACTAAAGAGACCCCCCACC

Sequence 1110

CCGGNAATTTGCTTATTCTAATTGAGACACANTGGTGGGGAGTGGGGGTCTGGGGACTACA
CAGGTGCATTTTCTGAACATTTATAAAATGAAAAAGATGGAGGCTTGGCTAGAATGGTTA
ATCCCCTTTTCTTCCTCTAATTCTATGACAATTTTTTAAAAAACCAACACAACCAAA
ATAAGAGTGGACAGTTGAGAATTACCTTTAGGTTCCCATGACCCTGAAGACTGTATTTGG
CCTTGGATCCATTAAAAAAAAAAAAAAAAAAAAA

Sequence 1111

CCCACGCGTCCGCGGCCATTTCTGTATCCCCCTGCCTGGGTTTGCTGCCCTTATGCTCC
TACCTCACCAGGTACAAGGAACATGAAGATGGCTATATGCGGCTGCAGCTGGTTCGCTAC
GAGAGTGTAGAGCTGACACAGCAACTGCTGCGGCAACCACAAGAGGGATCGGGCCTGGGA
ACGTCGCTGAACGAGAGCAGCCTGCAGGGCATTATTCTAGAAACAGTGCCAGGGGAGCCA
GGACGTAAGGAAGAGGAAGAGGAGGGCAAGGGTAGCGAAGGGACAGCCCTCTCAGCCTCT
CAGGACAACCCAGTTCTGTCATCCACGTGGTGAATCAGACCAATGCCCAAGGCCAGCAA
GAGATTGTCTACTATGTGCTGTCTGAAGCCCCAGGGGAGCCTCCCCAGCCCCTGAGCCA
CCTTCAGGGGGCATCATGGAAGCTTCAAGGAATAGCTGAGGAGCCAGAGATCCAGATG
GTTTGAAGGCCGAGAGCCAGACCATTCTTCCCAGGTCTGAAAGTTTGAGCCAGGCAAG
TGGCAGTGCCCCCTAGTGGGCAGCCGTTGCCAATGGATGCC

Sequence 1112

CCCCCGCGTCCGTAATTTTAAAGAACCTTGTTATTAGAAAATCTCAGCCTAATACAATCT
GAAGTTAAGAGTTTATGAGCAGATTGTTTTCTAAGTAGATTTAGCTATAGATTTTCTTCT
GGCCAAACAAGGAAGAGTATATGCCCTTGTAATGAGTCTTGTTTTGTTATTTAAATAGT
CAGTCAAAACGTAGAAATCAGTATACGTAAAATAAAATGCATGAGACTATTAATCTTTT
CATATACTCTACAAATAAAATGAAATCTGTGTGGTCCCTGGTTGACTGGGCATCTAAAG
GGAATCAGAAAAGAGATTGTGAAAAGTTATATATATATCCTCTTCTTATTTAGTTTTG
CTTTTTCTATTTTCCATAATTAAGTGCCGTTTACAAAAGTGGCATCAAAAAATTGAAGCA
GGCCAGGCATGGTGGCTCATGCCTGTGGTCCCAGCAGTTTGGGAGGCTGAGGGCAGGTGG
ATCACTTGAGATCGGGGGTTTCGTGACCAGCCTGGCCAACATGGTGAAAGCCCATCTCTAC
TGGGAATATAAAAATTAGCCCGCGTGGTGGCATGTGCCTGTGGTTCGCAGCTACTTGGGA
GGCTAAGACAGGAGAATTGCTTGGGCCCTGGGAGGGGGAGTTCANNNGNCCTGGANCGN
CCCCTGNNCTCNANCCCTGGCAACCANTGNNGACACCNCTTAAAAAAAAA

Sequence 1113

TCGACCCCGCGTCCGGTTTTTTGTCCCAGCAGTGGCATTAAATTAAGTACTTTAAGAC
ATGGAATTGCTGGAGGCTTGGAACTTGAGTGCAATTTCCCTAGTACGACCTCCAAGGAG
AATAGAGCAAAACAGTGGTAGGAAAACTCTCAAAATTTACCCAATTGTATGTTTTCTA
CATTGTCAGTATCTAGTTTTATATAGTTAATATGTACTTCTAAAATTTCTGACAGTGNTT
GGTGTATAAAACAGACCAAGCTCAAGATGTAAAGAAGATTGAGAAATTCACANTCAACT
AATGCGACTTATGGTAGCCAAGGAAGCCCGCAATGTTACCATGGAACTGAGTGAATGGT
TTGAAATGAAGACTTTGTCGTGTAAGTAAAGTAAATATCTTTGAATTAGAGAAAGTG
TTGGGACAGAAAGTACTTTATGTAAGTAAAGTGGGCTGTTGAGAAGCTTAGAGGTCATTTT
TTGTAATTTTNTTTTAATTACTTTAGAAGAGCTAGGGATGCAAATGTTTTCAATTTGGA
AAGCCTTATTTACTTTTTGGGAAA

Sequence 1114

TCGACCCCGCGTCCGATTCTTCTTCATATATTATGTCAGAAGAGTTTGAGAAGAAATGG
TATTAATCTTCTTTAAATGTTAGGTTGACTCACCAGTTAATGCAGCTATTTGGTCATAA
ATGTTTCTTTGTTAATCACTTCGATTACTAATTCAATCTGCTAGGTTATAGGTCTATTC
AGATTTTCTTTCTTCTTGAGCCACTTTGGTAGTTTGTGTCTTTCTAGTGATTCTGTTCA
TTTCATCCAGGACAGCTAATTTGTTGTTAGACAGTTGTTACAGTATACTCCTGTAATCC

TABLE 1
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TTTTGTATTTCTGTAAAGTTGGTAGTAATGGCTCTGCTTTCATTTATTATTTTAATAATT
AGTCTTCCATCTTTTGCTCAGTCAATATAGTGAAAGGCTTGATCTTCAAATAATCTATG
TTTATTCATTCTACTGCTCTCCAACTTCTATTTTATTGATTTATGCTCTAATTATGCTC
TCTATTATTTCTTTCATACTGCTAGCTTTGGATTAGGCTTATTTTGNCTTCTTC

Sequence 1115

GCCCCGCGTCCGGGATGACTAATGAAAGCAATNAGCTTGAACATTTAGAAAAAATTCATA
TATGATCTAAATTTTTATATTATCATTTCTGTGCCTTCTAATTCCTGCATCCTGTTCAAA
ACATCTTCCAGACATTAACTTACACATTGTATAAACCGACCAAAATGATTTCCCTAAAG
TTCATGCAAAAAAAAAAAAAACAACCTAATTTCTGTTAATATAAAAGAAACTTCAGTT
TACTGACCGTGAAACAGACTATGTACTGACATCCAGGGTAAAGTAAAGACTTTTAAATA
TTGGTCATTAAAGGACAGGAGCTAAGCTAGCAAAGCAAACATCTTTAGCACTTTGCAGA
TCTCAAGCAGTTAACCAGGCTCTGATTCCCTTCCACTGTTTTATGAATTAATTCAGTTTC
TTTTCATGTATCTTTGAACCTAAGATTATGAAGTAATTTCCCTATTAGGGACTAGAATGA
CTTCAGTTTTTTTCATTTGATAAAAATCAGAACTGCTACCTTTCCCTTTTTTAATGATGCA
AAATGTAGATGAGTGCATTAAGGGTTGTAAGGATCTTTATCATTTTATGNCATTATTGA
AAATTGAAATGTTTCATTCTTTTTAATGGTT

Sequence 1116

CNGCTTTCGTCTCTTCCCTTTNAAGTTGATACCCTTCTTTTTCTTGTCATTTTGCATTGCC
TGGGACCTCCAGAATAATGTTTCATGAAGTAGCATGTATCCATATCTGGTCTTGACTTT
TTCATCATTATAATTGTTTTCTATGGGTTACTTATCAGTTTAAGAATGCTTAATTCCTAG
ATGAACTAAGAGTGTTTATTACATGTTGAGATTTATGGTATGCTTTTTCTCCTCAAGAT
AATGCATTTTTTGTATTATCTGTAAATGTGATAGGTTATCCATTTGTGTATTTTCAATCA
TTGAACAACCTTGATTTTTTTGGATAAACTCTATTTGGTCATTATGCATCATTCTATAA
ACCCTGCTGAATTTTTTCATTTGCCAACATCTTATTTAGATTCTTTTAATCTGTGTCCAA
CAATGAGATTTGTTTTCTTTGCAATTTGTTTTGAATTTTTGGTATCAGAGCTATACTAA
CCTTATAATGGAAAATACATATTTCTCAAACCTTTACACTGATATATTCATAGTATTTT
TTATAATTTGAAAAATCTTGTCAGTATCTGTATTAAGGCCTNCATTTAGTTCTGCTATT
TCATATTGCCCTTAAGGTGGCTATTTGGCTCTTTAAGGACCCCGATTTTGATTTGTATT
TTTAAATAAAACCCCATTTATGCTATAAAAAA

Sequence 1117

GCCTTTTATGGTGATGGAATATGTCTCAGGAGGAGAGCTATTTGATTATATCTGTAAGAA
TGGAAGGGTAAGCTGTTCTGCTTTAATCTGTATGTATTTTGTNNCTNGNCCTTTATCCT
TACTAGCATCAAAATGTCAGCAACCAATTTAAGAGGTCTATTTAATAACCAGTTCCCT
TAGTCATATATTTGTTAGAATCATAAACTATGTAGAAGTAAAGGATCTTAAAGATTA
TCTCCTTAGCCTGTTTATACAGATGTGGATACTGAGCCTCGCGGCTTATATGATTGCTCA
CAGTAACGTGATTTATTAATGACGGAATTGGCTTGAGCCCCCAGAACTCATAATCCTCAG
ACTTATGCTTCCAGGGTATACAAATACTTTGAATATGTATCTTAATGTAATTAATCGTAC
CAAATATATTATTACT

Sequence 1118

GCGTCCGTTGTCATCTATTTACTTTACATATGTCATAAACCTAACACTACATGGTCATTT
TTGTTTAAACAGTCAATTACCTTTTAAAGGGATTTGAATAATAAGTCAAAATCTAATACA
TTAACTGTGTAGTTAGCATTTCTGGTGCTCTTCTTTCTTTCTGTAGATCCATACTTCCA
TCTGGCATTATTTTCTACTGCCAGAAGGACTTCCTTTAACATTTCTTGATGTAGTATC
TGCTGGTGATGAATCTTTCAGCTTTTGAATTTCTTTGTCTTTGAAAGGTATTTTCCCT
GAGTATAGGTTAATAGCTTTTTCTTTTCACTACTCTAAAGATGTTGCTCCAGGCCAGGCG
CGGTGGCTCACTCCTGTAATCCCAGCACTTTGGGAGTCTTGAGGTGGGCAGAACACTTGA
GGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCCGTGCTTCTAAACATAT
TAAAGAAAAAAGA

Sequence 1119

NCGTGACATGCTGGCTGCTAGTNAGCTCCCCCATGATTGTCAGCTTCCGAGCCCTCACTA
GAAGCAGATACCACCCACCATGTTTCTTTAAGCCTGCAGAACTGNGAACCAATT

TABLE 1
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AAAACTCTTTTCTTTATAAATTATCCAGCCTCAAGTATTTATAGCAACACAATAATGGCC
TAACACAACCTACAACCTCTCTATATGTATTTGTGTGTATTTAAAACATGCAGGAAATAAC
ACAGAATCCAAGGCACCCAAAACCTATTAATAAATGGAATCAAGAATTCATATGCCATTA
TGAAATTAGCCAGTCCTAAAATCTGACCTCTCTGCATTTTCACATTATTCTCCTCTCTCT
ATCCCTGCCTTCCTCCCTCCCTTCCTCCAACCTGTCAGAATTGTCCTGTAATCAAACATGT
TCACATCACAGCTTTTCATTTCTATTTCCAATCAATTGACCAGTCTAGCCAAGTAGCAT
CCTGGATCCCGTATTACATATTCCTAGGACAGGAAGCCAGATTTT

Sequence 1120

AGCTCTTTAGCAGGAGACAATTCTTAACTTAAATTAACTGAAAAAGCCACAGAAAAAA
GGGTTTGACACCCTAAAGCCAGTGTCCAAATGAACGCTACGGTTGNCCTCATAGGTGTGT
TATGAATGTTTACCCTGACCTCCTAGAAGAAAAGGAAAAAGAAAGGAAAGAGAGAGGGGAG
AAGGTGAGGGAAGGGGGGAAGAAAAAGAAAGGAGAGAAAAAGAACAGAGAAAAAACAGGG
AGGGAGGAAGCTGGGGAAGGAAAAAGACCATTGCTGACTCCGTTGTTTTATTCCAGAG
ATGATTCAATACCTCAAGAAGATTTCACTCCAGAAGGTACAGAGTTTTCTCAACAACC
TTTGCCCTCGACCTGAAATTGATAACATCTTTTCAGAATTGTAAGAGTACACATTTTAAG
CCATATCTTTTTAGCTTGCATTGATTCTCAGGTGGCTAGAGCAGGACTTGGAGTGGTAA
TTGGAGATGGAAGAACATCATACACTGTGTCTAAA

Sequence 1121

CGGCCGAGGTACTATAATGGTCCCCATCTTAATTTGAAAGCGTTTGAGAATCTTTTAGGA
CANGCACTGACGAAGGCACTNGAAGACTCCAGCTTCCTGAAAAGAAAGTGGCAGGGACAGT
GGCTACGGTGACATCTGGTGTCTGAACGTGGAGAATTTCTTGCTCCTCAAGGCACCAT
AAGAGAGAAGATTCTTTGAAAGCTTGGACTCTTTGGGCTCGAGGTCATTGACAAGCTGC
TCCTCTGATATCACGTTGAGAGGGGGGGCGTGAAGTTTTGAAAGTGACACAGATTCCGAA
TTTACATTCAAGATGCAGGATTATAATAAGATGATATGTCCGTATCGAAGGATTTCCGGC
TGTTGAGCCAAAGACTGCGTTACCCCTCAATCGTTTTTTACCCAACAAAAGTAGACAGCC
ATCCTATGTACCTGCCCC

Sequence 1122

CCCTTTGAGCGGCCNTNCGGGCTTNTACGCGGGGGCAGCGGGAAGCTCGCAGCAGCTGG
GGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGCAGGGAGATACACCCAACTGGGAGAT
GAGGAAACAGCAACCCAGAGAGGAGAATAACCCACACAGGATCATTTCGCGAAGGAGCA
AGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTACTGCAGCTTGAAGGAGCCA
ACCATGGATTGAGGCGTGTGAAGGAATATTTCTCCTGGCTCTACTATCAATACCAAATC
ATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCGATCTATGTTTAACACCATCTTACTA
ACCATTATTGCTATGGTGGTATACACTGCCTATGTCTTTATTCCAATCCACATTCCGCTG
GCTTGGGAATTTTTCTCAAAAATAT

Sequence 1123

CCCTTTGAGCGGGCCGTNCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACC
ACTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGT
TCTGGGAGAGGGACCAGATTGGGG

Sequence 1124

CCCTTATTTTNGGCNTTNGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTAT
AGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAAACTGCA
AAAAATTGCCAAAATGCNACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTT
GGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGG
TTTGAGTCTGGAAGCCTNATCCCTTCANCATCAAGCTGGAATGGGGAATGAAGAATGGA

TABLE 1

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NATGTGGTGCCCACTAGGCTACTGNTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTA
TTCAAATATGTAATGACTGGTATGGCAAAAGATTGGACTA

Sequence 1125

CCCTTANCGTGNTCNCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCAC
TNTATAGAGGGTGGGAAAATAAACCANAAATCAAGGGAGAAAAGAAAGATGAAAGACAAA
CTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCAT
GTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAG
AGGGGTTTGGAGTCTGGAAGCCTCATCCCTCAGCGTCAAGCTGGAATGGGGAATGAAGA
ATAGAGATGTGGTGCCCACTANGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGT
TGGTATTCAAAATATGTAATGGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATTGTTAACACCTGAATTG

Sequence 1126

CCCTTTCGAGCGCGCCGCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTNNGGACTTGCG
ACAGTTCACCTTTTACTCTCATTGGTAAATCTCCTTTTAATTATTAATAAATATTGATA
AATTTATTAATTAAGTCTTNNATTCTTTTGTATCAGAAGAGGACATTAATGTTGCGTG
TCTTGACTGTCTTTTTGCTTTGTAGATTTATTTGTGCTAAATGAGAACGATATGCATG
TTTGTGNTTGATTTTTCCAGAAGCAGTTACTTTAATTCTTTTTTAAGNGCTGATTTTGT
TTTTGCTTTAGGCATTAGTTTCTTCTCCTTTATAGNTTTTCAAATCAATTAATTCCT
TTATTTGTTTTGAAAGAAGTAAATTTGGGGTAATTTTTCTTATCACGCCCAATATGAAG
AGTTAAAAAATTACCAACTGATTGCATTTCTTACTTAATTTGCAAATCGATTTTACTT
CATCAAAAAAAGAATTTAANAATTAATTTACCTTGTTCAAGTCTTGGAATTTNCACGCC
CTCTAAGACGAAGAGCCACTTTTACTCTGCGTATCTAATAAAAATTCTTTGGCTTTTTT
GCTT

Sequence 1127

CCCTTAGCGTGGTCGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCAC
TTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAAA
CTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCAT
GTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAG
AGGGGTTTGGAGTCTGGAAGCCTCATCCCTCAGCATCAAGCTGGAATGGGGAATGAAGA
ATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGT
TGGTATTCAAAATATGTAATGACTGGTATGGCAA

Sequence 1128

CCCTTAGCGTGGTCGCGGCCGAGGTACATGCTANAAAAACATTANCACAGATACGACAGAG
TGTGGTTTTTTTTAGAAATGGGTAAATTTCTCTCTCCAGTATCCTTTCACTTGTATGAGA
TATTTCTCCTCTCCTGTTTTACAAACCAAGAAATCCCCAGGTAGGCCAATCCCAGAGGT
GCCATTTAGCAGTATGCAGCAGCCCAGTTTCAGCATAACAAAACATGCCTTGGTAGTGGC
TCTCTCATGCAATAAAAGAAAGCTTAAGAAATTTCTGTTGTAGGTGGATTAGGCAAGGC
TGCCATTCAGCTGGTATAAGCTAAAAGTAAAAAATCAAACGCTCAAGAAAACGGACACA
ATTTTGAATGATTAAAGATGTCTTTATAAAGTTTTTTTCAAGACTTCATTCTAAATACA
CAGAATAAAAAATGGGTGTCAGCTCACTTGTAAGACACCAACCAGATTTTCCTTATACTG
TCTCAAAATTTAAAGATCAATTTCCCCAGAAGGTGTNCAATGCATCATAAAATGGCCCTT
TTTTGAGGATGGGAGAGGAAGGGTTGGGCAGGATGGAATATTAAATTGTACATGGATAAA
CATGCCAAGACTGTTATCCAATCTAGATAATTTATATACATTTTGATGACTTAAGGAAAA
CAAAGCAATCATTTGGTGACAGCCTAAAAAGCNTGACCNTATTTAACATACTTAGGAACT
TTTTTNGG

Sequence 1129

CGTTCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACCTTTATAGAGGGTGTAA
AAATAAACCCAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAAACTGCAAAAAATTGCCA
AAATGCCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTC
AGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTG
GAAGCCTCATCCCTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCC

CACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATG
TAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTA
TGTTAACACCTGAATTGCTGGGTCTTGAAGAGAGCCCAAGGAGTTCTGGGAAGAGGGACC
AGATTGGGGGGTAGGGTCACGGGCTTGGGTGATAGAATTATTTCTCGAATGACTTTCTTG
AGTGCCAATTGAACCTGAACATTTGCTTANTCACCTTTAGNGGAGTAATCTCCTGGGCT
TGGTCTATATTATATAAAAG

CGGGCAGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGTAGGCCATTACCCTA
CCAACTAACTAATGTTCCGCACCCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATT
ACTCATCATGCGATAAATACTATATCCGGTATTAGCTATTGGTTCCAATAAGTTATCCC
CAGTCTTAAANGTAGGTTAAGTACCTCNGGCCGGCCACCGGGNTGGAGCTCCAAATTNGC
CCTATAAGTGAGGTGCGATTTACGCCCCGCCTCACTTGGCCCGNNGTTTTACAACCGTCC
GTNGACTNGGGAAAAACCCCTGGGCGTTTACCCCAANCTTTAATCCGCCCTTGGCAGCACAA
TCCCCCTTTTCGNCCAGGTTGGCGTNAATAANCGAAAAAGGCCCGGAACCGAATCGGCC
NTTCCNAACANGTTNGCGCCAGTNCTGGAATNGGCNAAATGGGGACCCCNCCCTTGTT
AACCGGGNGCATTTAAACCNCCGGCCGGNTGNTGGTTGGNTTACCCCCAANNGGTGAC
CCGNNTTCAACTTTGGCAAGGGCCCCCTAANGGCCGNTTCTTTGNTTTTTTC

[illegible]

AGCTCACTCAAAGGGCGGTAATACGGGTTATCCACAAGAATCAAGGGGATAACCGCAGGA
AAGAAACATGTGAGCAAAAGGGCCAAGCAAAAGGGCCAGGAACCGTAAAAAGGGCCCGCG
TTGCTGGCNGTTTTTCCATAGGGCTCCCGCCCCCTGGACCGAAGCATCACAAAAAATCG
ACGCTCAAAGTTCAGAGGTGGGCGAAAACCCCGGACAAGG

CCCGGGAACAAAGCNGCAACCGNGCCCCCTCCAGGTCNACGGNNTCGANAAGCNCGA
AAACCGAATTTTGNAGNTTNGGGGACCACTANTTNGNGAGCGGGGCCGANNNAGNG
CGGC

[illegible]

GGGAGTNNGGGAGCGGCCGAGGGGCCAAANGANCCGCGAAGACAAGGCCATCCACCACTNN
ANAGAGGGGGNAAAAACAAACCAGAAACCAAGGGAGAAAGAAAAGANGAAAGACAAACNG
CAAAAAANNGCCAAAAACGCGACNANCAAAAAANGGAGCAGANGCNGAGGCANNGCAAGNC
ACGGCANACCGNCAGGAGCCGAANGAAAAAAGCAACAAGCAAGANGAAGACNCTGAGAG
GGGCNCGGAGGCCNGGAAACNCATCCCTNCAACAACAAAGCNGGAANGGGGGGAAANGAA

[illegible]

TABLE 1

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AAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAA
GCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAGATT
GGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTC
TTGAGAGAGCCCAAGGAGTTCTGGGGAGAGGGACCAGATTGGGGG

Sequence 1141

ATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAG
GCCATCCACCACTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAAAG
ATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCT
GAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGAT
GAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAAT
GGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATT
CCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAA

Sequence 1142

ATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAG
GCCATCCACCACTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAAAG
ATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCT
GAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGAT
GAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAAT
GGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATT
CCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAG

Sequence 1143

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCACTCTATCCATCGTGGATA
GAGAACTGAAGCTCTCTAAGACCCTGCAGCTGGGAGGTGGCAGAGTCAATGGCAGCCC
TCAGCCCTATCTGCCCTGACATGGCATTCTCCCATTTCTCACCACCGAACCCCTCTAAA
TAACAATGTGTGGGGTCCTTGGCTGAGAGACTTNCCTTTTGGGAATCAATCTGAATGTAT
GATGACAAAGAAAACAACCTTTGCTTTATACAACCTCTGGTTAGATTCAGGCACCAAGC
AGGACACTCTTTTGGCGCTCCAAGAATCTTCAAATCTTCATCACCATAACAAATC
TTTCTGCTTCTCTTAGAGCATCTTCTCCACAATCTCACCCTCAATTAAGAGGCACTGGA
ACACTTTCCAGCGGACAGGGTTTATGCTTTGATCTGTTCCGTCATGTCCTCTCCACGT
TGAAACGATTAATGACAGAATTTTTTTTGGAGGCGACTCTATTAATCCCTACACCACCTN
CTCAGCTTTTGAAGGGTTTNCACATGGGTTCTTTT

Sequence 1144

GNAGCTCCCCGCGGTGGCGGCCGAGGTACGCCACCATGCCTGGCTAATTTTTGTATTTTT
AGTGGAGACGGGTTTACCATGTTGGCCAGGCTGTTCTCGAACTCCTGACCTCGTGATC
CACCCACATTGTCCTCCCAAGTGCTGGGATTACAGGCGTGAGCCACTGTGCCATGAGGAT
TAGTAAAGTGCACTCATGGTAAGTAAAAAATTTGTTTTATGTTNATGCTGATTATATGA
AGGTCATCATAGCTTAGACACAATCAAAACCCATGGGGAACATCTTAGAATTCATTTTT
CTCTTTTCTTACAAAAAAGTAAATAGGTAAAATGGAATAGAAGACAACCTATCCTAT
CCTGGATGAGACACACACATATTTAAATTGAATTATAGACTTAAATTTAAGTAGGGANT
TTTTTTTTNTGNGNAACAAAAGTTTNCAAAAAACCCAAACTTTTNGAATCACCACGTT
NTTGGAAAAATATGATTATGAAAGCAGACTTTTTGGATGGGNGCTTAATGACATTTAGGCG
ACATTTAAATGCCCTAGGNGNGGGAACACTTGAAATTGCCANCTAAATTTAAATGACC
CTTTTAATTTGCCTGGACAACAAAAAANTTTCCATGATTTTGGCTTTTTTTTGAACAANN
GANNAAGAAAAATTTTTTTTTTAG

Sequence 1145

CNATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACA
AGGCCATCCACCACTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAA
AGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATT
CTGAGGCTTTGCATGTCTTGGCATTCTTCANGAGCTGAATGAAAAATGCAACAAGCAG
ATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGA

TABLE 1
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ATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGC

Sequence 1146

TTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTAAGTGTGCAACAT
GCAAGGCCAGGTGGCCGTGAGGAATGTCCAATGACAGGCTCTATCAGTCATGTCCTGGT
GCAGCTCCCACATGTCTTCCAGAGGATGGAAGCTGAAAACCTAGCTTCAGTGATTGATGC
CAGGTTTAACTTTTTGTGAACAAGATTTGCCACAGTATCGTGATGCAGTCATGTCTCA
CACGCTCATCTATATCCCCTCCTACTTTGACTTCGTGCGTCTTCGAAATTACTTCAAGAA
GGAGGAATTGAATTTTACCCACATCTGCGAGTACCT

Sequence 1147

CCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTNTTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGAATAAGAACTGGCCAT
ACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGGGAGCCCAAGGAGT
TCTGGGAGAGGGACCAGATTGGGGGGTAGGTCC

Sequence 1148

TTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGAGTTCT
GCGCAGCTTCCCGAGGCTCCGCACCAGCCGCGCTTCTGTCCGCCTGCAGGGCATTCCAGA
AAGATGAGGATATTTGCTGTCTTTATATTCATGACCTACTGGCATTGCTGAACGCATTT
ACTGTCACGGTTCCCAAGGACCTATATGTGGTAGAGTATGGTAGCAATATGACAATTGAA
TGCAAAATCCAGTAGAAAAACAATTAGACCTGGCTGCACTAATTGTCTATTGGGAAATG
GAGGATAAGAACATTATTCAATTTGTGCATGGAGAGGAAGACCTGAAGGTTGAGCATAGT
AGCTACAGACAGAGGGGCCCGGCTGTTGAAGGACCAGCTCTCCCTGGGAAATGCTGCACTT
CAGATCACAAGATGTGAAATTGCAGGATGCAGGGGTGTACCTTGCCCCGCTCTAGAACT
AGTG

Sequence 1149

TGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGA
AGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAA
AGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGC
AGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACA
AGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGC
TGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTG
GACTAAGAACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCT
TGAGGGGAGCCCAAGGAGTTCTGGGAGAGGGACCAGATTGGGGG

Sequence 1150

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTG
TGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGA
NAAAGAAAAGATGAANGACAACTGCAAAAAATTGCCAAAATGCNACTTTCTAAAAATGG
AGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATTGAAAAA

Sequence 1151

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTG
TGAGGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGA
GAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCTAAAAATGCGACTTTCTAAAAATGG
AGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCA
ACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATC
AAGCTGGAATGGGGAACGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGG
AGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGA

TABLE 1

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Sequence 1152

CCGCGGTGGCGGCCGCGAGTTACCTGACGTATGACAACCCAGATATCTTGAAGAGGGTGTG
AGGATCAAGATCAAATGTGTTTCATGAGGTTTAAACAACCTGCCAAGGATGGCCTTTTGCT
GTGGAGGGGAGACAGCCCCATGAGACCCAACAGCGACTTCATTTCTTGGGCCTTCGGGA
TGGAGCCCTCGTGTTTCAGCTATAACCTGGGCAGTGGTGTGGCATCCATCATGGTGAATGG
CTCCTTCAACGATGGTCGGTGGCACCAGTTAAGGCCGTTAGGGATGGCCAGTCAGGAAA
GATAACCGTGGATGACTACGGAGCCAGAACAGGCAAATCCCAGGCATGATGCGGCAGCT
TAACATCAATGGAGCTCTGTATGTGGGTGGAAT

Sequence 1153

GCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACGAACTAAATTTTTTAACTTTA
TTTGCTGTAAATTCTGTGAAGTTTCAGTTATCTAAAATAAATATACACAAATATGAAAT
ATAATGTTTCAGATTGCAAGGTAATATGTAATAGTAGTGTGTAAGATACTCTTGCTA
ATATTAAGTAGTAGTATTTTGATTTGTACAATGTCACCCTCCAGCAACAAGAAGACAA
GCTACTGAATCAGTGTCCCTTTATTACTATGGCATCAAAGATTTGGCTACTGTTTTCTC
TACATGCTAGTGGCGATAATTATTCATGCCGTAATTCAAGAGTATATGTTGGATAAAAT
AACAGGCGAATGCACTTCTCCAAAACAAAACACAGCAAGTTTAATGAATCTGGTCAGCT
AGTGCGTTCTACCTTTTTGCCTGTGTTTGGGGCACA

Sequence 1154

GAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGCTTTGGCATTCCCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGT
TCTGGGAGAGGGACCAAGATTGGGGGGT

Sequence 1155

TGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAATGTGTGAAGACAAGGCCATCCA
CCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGA
CAAATGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTT
GCATGTCTTGGCATTTCCTTCAGGAGCTGAATGAAAAATGCANCAAGCANATGAAGACT
CTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAT
GAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCAC
CAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGG
CCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGG

Sequence 1156

CCGCGGTGGCGGCCGCGGCCGAGGTACATTGGCACGTACAGATGTCTTGAGTTTCATTC
ACTAGGTGGCAGCCTGCATCGTTCCACTGCAAAATGACTGAAATCCCAAAACACACAATGA
GGCTGGCTCAGGTTTGACTCTATCTTGAAAAAATAGGAAAACCTTCATTTATGGAATAG
TTTTGAATAACCGTGGATATCACAGGTCCATTGACCTGAGCATTTCATTTTTGGAACG
GGTAGAATGTTCCCGAGAGTCAACGAGGCCATGCTGATAATAGTTTCTGGAAGGGATCTC
TGGAATTGGTCTGACCCAATTAACACACGGCCTCTGATGGGAATAGATGTATTTTGGGA
CACATTTTAATCTGATAGCTGTAACCCCTTTTGAGTTGGCTTTTGTTCACTGGAATCCCT
TTCCAGTCAATGAATTTCCGAGAAAAATTGAGAGGAAGAGCTGTGCGAGGCACCAAGAGT
CTGATGTTTTCT

Sequence 1157

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCCGAGGTACGCGGGGCAGTGG
GAAGCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGAGGGAGA
TACACCAACTGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCACACAGGA

TABLE 1
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TCATTTCTGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAAACTTAC
TGCAGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTC
TACTATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCGATCTATG
TTTAACACCATCTTACTAACCATTATTGCTATGGGTGGGTATACACTGCCTATGTCTTTA
TTCCAATCCACATTGCGCTGGGCTTGGGAATTTTTCTTCAAAAATATGTGGATATCACAG
GNCCTCGGCCCGCTCTAGAACTAGTGGGATCCCCCGGGCTTGCAGGGNAT

Sequence 1158

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGCAGTGGGA
AGCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGCAGGGAGATA
CACCCAATGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCACACAGGATC
ATTTCTGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAAACTTACTG
CAGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTCTA
CTATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCCGATCTATGT
TTAACACCATCTTACTAACCATTATTGCT

Sequence 1159

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGCAGTGGGAA
GCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGCAGGGAGATAC
ACCCAATGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCACACAGGATCA
TTTCGTGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAAACTTACTGC
AGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTCTAC
TATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCCGATCTATGTT
AACACCATCTTACTAACCATTATTGCTATGGGTGGTATACACTGCCTATGTCTTTATTCC
AATCCACATTGCGCTGGCTTGGGAATTTTTCTCA

Sequence 1160

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCCTTTATA
GAGGGTGTAAAAATAAACCACAAATCAAGGGAGAAAGAAAAGATGAAAGACAAACTGCAA
AAAATTGCCAAATGCGACTTTCTAAAAATGGAGCANATTCTGAGGCTTTGCATGTCTTG
GCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTNAGCATCAAGCTGGAATGGGAATGAAGAATAGAN
ATGTGGTGCCCA

Sequence 1161

ACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGAAGGTGGGTGACGTGCGGA
TCTTCTTCTTTTGTGGCTGTGGACACCTTTCAACACTGCCTTCTTGGCCTTTAAAGCCT
TCGCTTTGGCTTCAGCTTTAGGAGGGGAGGAGCCCATCGCAAAACCAGCTGCGGAGAG
AGGGGCGGGTAATGTAGCCCGGTTGAACATGAACCAGAAGGAAAATGGTTAAAGCTGAGG
GCACTAATTCTTACAGGCCCGGGGACATGGAGCTCCAACCAAGTGGATGCATGTAGCTTC
CCAGAACCGAATGTCTGCCCGCGTACCT

Sequence 1162

CCGCGGTGGCGGCCGAGGTACCACTCTATCCATCGNGGATAGAGAACTGAAGCTCTCTA
AAGACCCTGCANCTGGGAGGTGGCAGAGTCAATGGCAGCCCTCAGCCCTATCTGCCCTGA
CATGGCATTCTCCATTTCTCACCACCGAACCTCTAAAATAACAATGTGTGGGTCTCT
TGGCTGAGAGACTTCCCTTTTGGGAATCAATCTGAATGTATGATGACAAAGAAACAACT
TTTGCTTTATACAACCTTNTGGTTAGATTACAGGCACCAAGCAGGACACTTCTTTGTGGCG
CTCCAAGAATCTTCAAATTCTTCATCACCATAACAAATCTTCTGCTTCTCTTAGAGC
ATCTTCTCCACAATTCTCACCTCAATTAAGAGGCACTGGAACACTTTCAGCGGACAGG
GTTTAGT

Sequence 1163

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGA
CAAGGCCATCCACCCTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGA
AAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGA
TTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGC

TABLE 1
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AGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG
GAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGA
AATTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAGATTGGAC
TAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCT

Sequence 1164

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCNGGCACGGTNCCAAATGAAC
GTGTGAAGACAAGGCCATNCACCACTTTATAGAGGGTGTAATAAACCAGGAAATCAA
GGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAA
ATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAA
TGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAG
CATCAANCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAA
AGGGAGCTGAAATTCCTCCACCAAGTT

Sequence 1165

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCATTTTCTTTNTCCTGT
CCATAAATCTTCTCCACCACGTGGCTGTGTNCAAGACTCTCTGAACCTNCTCTGGCTCA
GGAGGCTTNTAGATNTGTGAATTGTCTGCTCAGTNNACTCCATTAAATTNAATNTGGCC
AAGAANTTTCTTCTAACAGNGGTATTGATGACCATTAACTCTTCAACCTAAACCTGCTC
ATTAA

Sequence 1166

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGAC
AAGGCCATCCACCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGAT
TCTGAGGCTTTGCATGTCTT

Sequence 1167

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAACAAGCGTTTGT
AATGTTTCCCAAATATTAGCTTTGAAATCCAAATGTCAAGCAGGTTAAAGTTCANAAAAAC
TATAAATGTAATTGTTAATAAAACAATGGATGAAAAAAGTCATTGAAATTTTTTCTACT
TGGATTAAGAACATAAATTAAGTGAACCTGCAAAAAATAATATTAGTTTGATAAGTAA
ATAAAACAACTAGATATATTTGAAAAATAAAAAACAAATGAAACAAAATAAAAATTTAGG
TAAAGAAAATCAACGTAATTTGTTGTAGCTATATTTTTGTAATAATTACAAAAGTAGA
AATAATAGCTCATAAAGCAAAAACAAAATTTATTCTATGTTCTTTTTTTCAGTCAATTCA
GAATTTTAGCTTCATATTTGAAGCATTTTTTCTAATTTTGTGNGAATTTGAATTTGT
TTGCGGATTTTGATTTGCCATAAAAAATATTATNTATTTAATTATATTAATCTTCGTC
AGCTTTAATTGCTCTTCTTTAAATTTGATCTGAAAT

Sequence 1168

CCGCGGTGGCGGCCGAGGTACCCTTGTCCTCTTCTCAGTGACTTAAACAATTCCAGGA
TCAGAAGAGAAGCCAACGTGACATCCTCGATAAACTGGGGATAAGCTGAAGTTCTGTCT
GTTACGAAGTGGTTGAAAAACAATTCGAGATCCAGAAGTCCCTTGATGGGTTCAACCAT
CCAGGTGTTCAAAAAATCAGAGAATCTTTTNAGGGGGTGGNCGCNTTAACCCTTTTN
NGGTTNANTGAAAATCCCCCCCCCTGNTTTTTTTTGAGAGGTTNAAAAATTTTTTTTTNAA
AAAAAAACCCCCCCCCCNNGGNATTNTNANTTTTTTTTTTNNNNNCCCCNNCAAAATTT
TTTTTTAACCCCCCCCCCNAAAAAAGGGTTTTTTTTTTTTAAAAACCCNCNGN
TCNCCCNNNCCANAAAAAANGGGGGTCCCNTTTTTTTTTTNTNNCCCCNNGGN
TTTTTTTTTTTTNTTCTNNNNNNGGGGGGGGGGAAAAAANAATTTTTTTTTT
TGGNGGGGGGGNNGCNCCNCCCCCNCGGGGGGGGNGGNTTAAAAAANGNCCCCC
CCNNGGGGGGGAANNANTTTTANTNNNTCCCCCCCCCNGGGGGGGGGG

Sequence 1169

CCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA

TABLE 1

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GAGGGGTTTGGAGTCTGGAAGCCTCATCNCTTCAGCATCAACTGGAATGG

Sequence 1170

CCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAATAAATAAACCAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCANATGAAGACTCTGA
GAGGGGTTTG

Sequence 1171

GNGGCGGCCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGG
GTGTAAAAATAAACAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAACTGCAAAAAA
TTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCAT
TCCTTCAGGAGCTGAATGAAAAATGCAACA

Sequence 1172

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCATCTAGGTCAG
TTTAAGAAGAGTCAGCTCAGAGAAAGCAAGCATAAGGGAAAATGTCACGTAACTAGATC
AGGGAACAAAATCCTCTCCTTGTGGAAATATCCCATGCAGTTTGTTGATACAACTTAGTA
TCTTATTGCCTAAAAAAAATTTCTTATCATTGTTCAAAAAAGCAAAATCATGGAAAATT
TTTGTGTCCAGGCAAATAAAAGGTCATTTTAATTTAGCTGCAATTTTCAGTGTTCTCTCAC
TAGGTGGCATTAAATGTGCGCTGATGTCATTAAGCACCATCCAAAAAGTCTGCTTCATA
ATCTATTTTCAAGACTTGGTGATTCTGAAAGTTTGGTTTTTGTGACTTTGTTTCTCAGG
AAAAAAAATATTCTACTTAAATTTTAAAGTCTATAATTCAATTTAAATATGTGTGTGTCT
CATCCAGGATAGGATAGGTTGTCTTCTATTTTCCATTTTACCTATTTACTTTTTTTGTAA
GAAAAGGAGAAAAATGAATTTCTAAAGATGGTCCCCATG

Sequence 1173

AGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTCCAGGTGTTACAGCTGCT
TCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTGCC
CAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGGG
CAGTTCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGCA
TTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCAG
TGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAACATGTCC
TTGCTCTCGCAGTGGCCCTGGCAGGCCAGCCTTCAGTTCCAGGGCTACCACCTGTGCGGG
GGCTCTGTATCACGCCCTGTGGATCGTCACTGCTGCACACTGTGTTTATGACTTGATC
CTGCCCCG

Sequence 1174

AGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTCNAGGTGTTACAGCTGCT
TCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTGCC
CAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGGG
CAGTTCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGCA
TTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCAG
TGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAACATGTCC
TTGCTCTCGCAGTGGCCCTGGCAGGCCAGCCTTCAGTTCCAGGGCTACCACCTGTGCGGG
GGCTCTGTATCACGCCCTGTGGATCGTCACTGCNTGCACACTGTGTTTATGACTTGTA
CCTGCCCCG

Sequence 1175

AGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTNNAGGTGTTACAGCTGCT
TCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTGCC
CAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGGG
CAGTTCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGCA
TTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCAG
TGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAACATGTCC
TTGCTCTCGCAGTGGCCCTGGCAGGCCAGCCTTCAGTTCCAGGGCTACCACCTGTGCGGG

TABLE 1

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GGCTCTGTCATCACGCCCCTGTGGATCGTCACTGNTGCACACTGTGTTTATGACTTGTAC
CTGCCCCG

Sequence 1176

CCGGGCAGGTACAACAAGCGTTTGTAAATGTTTCCCAAANATTAGCTTTGAAATCCAAATG
TCAAGCAATTAAAGTTCAAAAACTATAAATGTAATTGTTAATAAAACAATGGATGAAAA
AAGTCATTGAAATTTTTCTACTTGGATTAAGAACATAAATTAAAAGTGCAACTGCAAA
AATAATATTAGTTTGATAAGTAAAATAAAACAACTAGATATATTTGAAAATAAAAAAC
AAATGAAACAAAATAAAATTTAGGTAAAGAAAATTCAACGTAATTTGTTGTAGCTATATT
TTTTGTAATAATTACAAAAGTAGAAATAATAGCTCATAAAGCAAAAACAAAATTTATTCT
ATGTTCTTTTTTTCAGTCAATTCAGAATTTTAGCTTCATATTTGAAGCATTTTTTCTAA
TTTTGTTTGTGAATTTGAATTTGTTTGGGATTTNGATTGCCATAAAAATATTATATT
TATTTAATTATATTAATCTTCGTCAAGCTTTAATTGCTCTTTCTTTAACAATTTGATCTGA
AATTTGTTTTGGTGTTATTTCATAGTGATCAAATTGCATTTGATAAGTTCCACGACCTGA
TGTCATAGACCTTAATTGTGTGAGTATCCAAACATTTT

Sequence 1177

TAGGGCGAATTGGACTCCACCGCGGTGGCGGCCGCCCGGGCAGGTACCTACGGAAATCCT
AACTACCACTGGCAGGAACTGCATATNTTCTGGTTTACATGAAGANGGAGGGGCTAANGG
AAATGCCCAAACCTTCAGAGATTGACACCGCTGTCATTNTCCATNTCNGTTCTGGAAT
CTACCGGGAGTNTTATAAGAAGANTTTTGCAAATNGAGGGAAGAAGCAATTGTTTTCAA
ACTATATAACTGGAGNCCTTAATTTATAATTAGGGGATATTTAATCAAAAATATNGTAAA
CCATGGAGGGCCCCCTCAGNGTNTCGGATCAGGTTCAAGAAATNGAAATGNTTTTCACCC
AAGNCANGACCCCGGCCATGTGGGCATGNTCCGGGTNCCTGGGGGTGGCNTCGNCTGGCT
TGTGGCGAANGAACAATTAAGCCCCTTTAAAGTTTATTGAAGCCCTGNGGGGAAACTTTA
AGGGGGTTTCCANAGTTGGGGGANGAAGCANTNGGNNAGTTGGNGAAGGGCATTTTGGGG
GGG

Sequence 1178

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGC
CATCCACCACCTTTATAGAGGGTGTAATAATAAACCAGAAATCAAGGGAGAAAGAAAAGAT
GAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGA
GGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGA
AGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGG
GGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCC
TCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAGATTGGACTAAGAC
ACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCT

Sequence 1179

CCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAATAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAATGCGACTTTNTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAAAATATGTAATGACTGGTATGGCAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGG

Sequence 1180

CCGCGGTGGCGGCCGCCCGGGCAGGTACCTATTGCCAGGAAGATAGGCAGCTCATCTGTG
TCCTGTGTCCAGTCATTGGGGCTCACCAGGGCNCNCAACTCTCCACCCTAGACGAAGCCT
TTGAAGAATTAAGAAGCAAAGACTCAGGTGGACTGAAGGCCGCTATGATCGAATTGGTGG
AAAGGTTGAAGTTCAAGAGCTCAGACCCTAAAGTAACTCGGGACCAAAATGAAGATGTTTA
TACAGCAGGAATTTAAGAAAGTTCAGAAAGTGATTGCTGATGAGGAGCAGAAGGCCCTTC
ATCTAGTGACATCCAAGAGGCAATGACCACAGCTCATGTGACTGAGATACTGGCAGACA
TCCAATCCACATGGATAGGTTGATGACTCAAATGGCCCAAGCCAAG

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Sequence 1181

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGG
CCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGA
TGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTG
AGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATG
AAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATG
GGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTC
CTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAGATTGGACTAAGA
CACTGGCCATACCACTGGACAGGGTTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGA
GCCAAGGAGTTCTGGGAGAGGGACCCAGATTGGGGGGGTA

Sequence 1182

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACCAAATGAAGTGTGAA
GACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAA
GAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCA
GATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAA
GCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGC
TGGAATGGGGAATGAAGAATAGNAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGC
TGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAGATTG
GACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAA

Sequence 1183

TCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAA
GACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAA
GAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCA
GATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAA
GCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGC
TGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCT
GAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAGATTGG
ACTAAGACACTGGCCATACCACTGGACAGGGTTTATGTTAACACCTGAATTGCTGGGTCT
TGAGAGAGCCCAAGGAGTTCTGGGAGAGGGACCAGATTGGGGGGTAGGTCCCGGGCTTGG
TGATAGAAATATTTCTCGATGACTTTCTTGAGTGCAATTTGNACTGTAACATTTGCTTAA
TCACCTT

Sequence 1184

ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGATAGTCATCTCAGTAAAGGTCTAT
TATCTAAGTTGCCAACTTGTTTACTGAGAGCCCTAAGGAACTAAACNGCCATAATGCC
GTGCACAGNTTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTCCAGTTTN
CTCAAGCAGGCCTGGCTGAAGGCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAA
TAGCAATAGCAATAAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCACCT
NTCCCGGATCAGGCTTCCATTGCTCACGATGCTCACGCTGGGCAGCCGCACTNTACTTT
GCAGAACCTCACCAACTTGCCAGGTNTTCTCCCGGTCTTGAAGAAATGGCTCTCCACC
TGAAAAGTNNGATCTTCTCCATACCAGCTTCTTAAGCAAAGCAATCCTCTCTTTGCTTC
CTCAAGGGGCA

Sequence 1185

TAGGGCGANTTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAA
GGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAA
GATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCT
TGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGA
TGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCNTTCAGCATCAAGCTGGAA
TGGGGAATGAANAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAAT
TCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATG

Sequence 1186

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGG

TABLE 1
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CCATCCACCACTTTATAGAGGGTGTAAAAATAAACCCAGAAATCAAGGGAGAAAAGAAAAGA
TGAAAGACAAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTG
AGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATG
AAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATG
GGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTC
CTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGA
CACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAG
CCCAAGGGAGTTCTGGGAGAGGGACCAGATTGGGGGGTA

Sequence 1187

CCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGT
TCTGGGAGAGGGACCAGATTGGGG

Sequence 1188

CCGCGGTGGCGGCCCGAGGTACAAGATANTCATCTCAGTAAAAGGTCTATTATCTAACTTG
CCAACTTGTCTTACTGAGAGCCCTAAGGAACTAAAACTGCCATAATGCCGTGCACAGCTT
GAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTTCNAAGTCCTCAGCAGGCC
TGGCTGAAGGCCCGAGGAGGGAAGGAAATATAAGAACCAACAATAAAAAATAGCAATAGCAA
TAAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCACCTCTCCCGGATCAG
GCTTCCATTGCTCACGATGCTCACGCTGGGCAGNCGCAACTCTACTTTGCAGAACCTCAC
CAACTTGCCAGGTATTCTCCCCGGT

Sequence 1189

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAG
TGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCCAGAAATCAAGG
GAGGAAGAAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAAT
GGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATG
CAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCA
TCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAG
GGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAA
AGAATTGGACTAAAACACTGGCCATACCACTGGACAG

Sequence 1190

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATGGCGAAGCTAGA
GACTGTAACCTGAAGATTGGGACAAATTAAGAAAAAAATGTGATTTAACACAATTACAA
AACTGTTACGTTAGGGTCAAACAAGAACCATTATGAACTGAATTACAACAAATGAC
ATTATATCTAACTCTTCCGGGTCTCCACAACACTTATACTTACTTAAGCAGCTTAAACAC
TTCCGAGTCTCCACAGCACTCTGATACTTACTTAACAGCTCTTTAACCTGCCCTAGTA
TTCTTAAGTGCAGCATATCTAATTTTTTTTTCTCAAGTAGTTTGA

Sequence 1191

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGNCAGGTACCAAATGAACGTGT
GAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCCAGAAATCAAGGGAG
AAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGA
GCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAA
CAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCA
AGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGA
GCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGAT
TGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAA

TABLE 1

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Sequence 1192

CGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGAC
AAGGCCNTCCACCACTTTATAGAGGGTGNAAAAATAAACAGAAATNAAGGGAGAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCANAT
TCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCC
GATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGG
AATGGGGAATGAAGAATAGAGA

Sequence 1193

TGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAG
GCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAG
ATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCT
GAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGGAAAAATGCAACAAGCAGAT
GAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAAT
GGGGAATGAAGAATAGAGATGTGGTGGCCACTAGGCTACTGCTGAAAGGGAGCTGAAATT
CCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAG
ACACTGGCCATACCACTGGACAG

Sequence 1194

NGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACATAAATCACCTGGAACCTTG
TTAAATGCAGATCCTGACTCAGGAGGTCTGAGTTAGAGCCCAGGATTNCATATTTCTAG
CCAGCTCCATGATGAGCTGCTGGTCCGCAGATCATGCTTGCNGGTTTTGACCAGAGTCAG
TGTTGGTTANAGTAAGAGGATGAGGCANACATNTGGGAAAAGTCCAGCTGGGGCAAGCAT
TTGAAGTCTGCCTTCCTACCANGTCAAAATCAAGGCAACGACCTTCCATAGATAACTATC
AAAGCTTGAGGGGGNGCCTTGAACCCAACCTCTAAATCCCTAAGACCTGCCCACCTCTTG
TGCTCCTGTNTNAGCAAACATCCCACACTCTTGCAATTGTTAAAAGTAACCTCTGCT
TACCAGGCTTTTG

Sequence 1195

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGGGGGTGTCCGAACAAGGCAGGTTG
GTGGGTAAAGGTCTTAATCTTGACTCGAGATCTCTCTCCGGAGTTCACAGNGTNGGCGAC
GAAGCCGAAGCAGCTGGAGCGCGACCCGGAGGAGTCTGACTTCTCGTTGTCTTCATAATT
TTCATTCTGTTGCTTTCTTCGTGGACTTGCGGCTGGGGGAGGATCCCGCTGGTCGCCGAG
CAGGCGGGCGGGTAAAGGTAGGCCGCCGAGAGCGAGGTTAGGAGAGGAGAGGAGGCCGCA
GTACCT

Sequence 1196

ATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGAGGAGGCGGAAGCGC
AGCGGGGGCGGGAAGGTTGTAGTGCCGCGAGTTGAGCTCCTCTTGCTAAGTGGTCGCGC
CCCCTTTAAGAGCAGCGATTGTAAGGAGAGGCGGTCCCGGTGTCCTCGGGTCCCAGGTGA
TTGTGAAGTGCTGACCAATTGCCACTGGACATACTTGAAACAAAATAGGAAAATGGCAGC
AAACCCTGTCTCTAAATCAATCAATCAAGCGAGCCAGAATGCAGTAGTGGCCTGAGAGAG
GCATCCTGGAACGCAGTGCGGTCTGGCTAGGCTTAGAAGTATTATGTGATTTTTACCTG
ACAAGGG

Sequence 1197

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGA
AGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAA
AGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGC
AGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACA
AGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATAGAGATGTGGTGGCCACTAGGCTACTGCTGAAAGG

Sequence 1198

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGAGAGCG
AGCTTCGGAGAAGCAGTGGTGGGTTCATGTGGTGGTGGAGTAGGAGGCAGGTCTCCGCG
GTGGTTTCCACAAGAAAAATGGCACAATGTTTCTCAGAAGACAATTACATAAGAAATCAGC

TABLE 1
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ATACTTTAAATTCACAGCAAATAATCAGACAATTGATGAAAATACTTACCCAAACACTAA
TTGTAGACTGTGCCTTCTGAATATGTTTTGTCATAAACTTGGAGTAAGGAATCCTCACAG
GCACTGGACAATTCAAAAAACGTAAAGTTTGTGTTAGAAATACCTGGGTGCTTTTGGAT
AGAAACCCTCATCCATATCCTGGTAAGGCTTGAAGTTGCACAGGAGTTTTCATTTGTCAA
AAGCCAGAAAACCATAAGCTTTAGATTTGGG

Sequence 1199

CCGCGGTGGCGGCCGCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTNTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTTTGA
GAGGGGTTTTGGAGTCTGGAACCNATCCTTTACNTTCAACTTGAAATGGGGAATGAA

Sequence 1200

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAANTGAAGTGTGAAGACAAG
GCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCATAAATCAAGGGAGAANGAAAAG
ATGAAAGACAACTGCAAAAAATTGCCAAAATGCNGACTTTCTAAAAATGGAGCAGANTC
TGAGGCTTTGCATGTCTTGGCATTCTCAAGAGCTGAATGAAAAATGCAACANGCAGAT
GAAGACTCTGAGAGGGGTTTTGGAGTCTGGAAGCCTCATCCNTTCAGCATCAAGCTGGAAT
GGGGAATGAAGAATATAGATGTGGTGCCCACTAGGNTNCTGCTGAAAGGGAGNTGAAATT
CCTCCACCAAGTNGGTATTCAAAATA

Sequence 1201

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCACGGTACGCGGGGGTAAC
TGAAAATCCACAAGACAGAATAGCCAGATCTCAGAGGAGCCTGGCTAAGCAAAACCCTGC
AGAACGGCTGCCTAATTTACAGCAACCATGAGGCCACTTAAGGATGCAGCAAGAAGGAGC
CATCTGCAATCCAGGAAGAAATTCCTTGCCAGGAACCAATTGGTTGTACCTTCATCTA
GGACTTCTAGCCTCGAGAACTTACAAATGGTGATGATCAT

Sequence 1202

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGAC
AAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCATAAANNAAGGGAGAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCANAT
TCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCA
NATGAAGACTCTGAGAGGGGTTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGG
AATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAA
ATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAAG

Sequence 1203

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACAATATAAAATAATA
CATATGAAGCCACAATATTCAATTACAGTTCAAACTAGAAATTACTAATCATGTAGCT
GCTTCATTTTTCGTTTTGCATTTTGGCCCTAATTCATATTTACAACTGATACCTGCTGA
GAAAAAGATCCAACTTTTAACTTTGTATGTTTTGTGGAGGGTGCACAATTTCTTCTAA
TATATCTTCAGGTGTTTTAAATTTAATTTGTTTTAATCATAAGATATCATCATGGCCA
AGAGACTGGGAAAATAACAATTTTATTCTTTCTCCTAAGATTGNGATTTTATTATTCAA
GATCTTATGCTTGAATTACTTAGCAAGAAGGCATGATTATGCANAAGACAGGGAAATGAA
GAGAAAAGAGCGGGAATATACGAAAATGAAGCTTCCTTAACAGAGTTCATGGTGGAGATG
GTAGACACTGGTGGAGTTTTTTTCCAGACTTAA

Sequence 1204

TCGAGCGGCCGCGCGGGCAGGTACACTCTAAAGAAAGCCATGAGGATGATAATCCACTTT
GATACTTCCAATCTGCTGGTCTTGCTGAACTCTTTGGATCATGGATATCATAAGTTTCGAC
AAAATATTTTTTTGTAGAAGCACAAATGTGAAGNGTCACTCGTTCTGAGACTTCCTCCT
CTGTGAAATTCACAATCTCTTTCTATTTATAGACTTTTCCACAGCAAACATTAGTCTAC
GCAGAGCATTTTGAAAATCATTTGCCAGTCTAAAGTAGTAATAATAAATACTCCAAGAA
CTAAAGTCCCTCGTAGCATTCTGGATACCTGGCAGGCATGTTCTGTGGCCCATTC

Sequence 1205

TABLE 1
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NNGNCCTTTCGAGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCC
ACCACTTTATAGAGGGTGTAATAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAG
ACAACTGTAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTT
TGCATGTCTTGGCATTCTTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACT
CTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAT
GAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAAT

Sequence 1206

AGCGTGGTCGCGGCCGAGGTACATAAAACATTATTCCTTCTTGGCCTAAAACTCATCG
CCACCTACATTAAAGCTAATATGCCTGATTACTGTTTTAGAGAAGTTATTTTATTAGGG
CAGTTCCAAGCTCAAAAATACGTAACCTGGCACCTTGNTAGCTACATAAAATGCACCCT
AGACCCGAAACTTACTAGACTCATTATAAAATTTCTTTAAGGTGTCCACGCAGTCCCTG
GTCACACTTGAAGCAGTCCGGAGAAATATCAGCCCTACCCAGTAATCCCAGAAGGAAC
TTACACTTTTTTTAATCTTTTCTACAACCTTCATATTTTATAAATA

Sequence 1207

CCCTTAGCGTGGTCGCGGCCGAGGTACCATCTAGGTGAGTTTGAAGAAGAGTCAGCTCAGA
GAAAGCAAGCATAAGGGAAAATGTCACGTAACTAGATCAGGGAACAAAATCCTCTCCTT
GTGGAAATATCCCATGCAGTTTGTGTGATCAACTTAGTATCTTATTGCCTAAAAA
TTTTCTTATCATTGTTTCAAAAAGCAAAATCATGGAAAATTTTTGTTGTCCAGGCAAATA
AAAGGTCATTTTAATTTAGCTGCAATTTAGTGTTCTCCTCACTAGGTGGCATTAAATGTC
GCCTGATGTCTAAGCACCATCCAAAAGTCTGCTTCATAATCTATTTTCAAGACTTGG
TGATTCTGAAAGTTTTGTTTTGTGACTTTGTTTCTCAGGAAAAAATATTCCTACTTA
AATTTTAAGTCTATAATTCAATTTAATATGTGTGTCTCATCCAGGATAGGATAGGGT
TGTCTTCTATTTTCCATTTTACCTAT

Sequence 1208

CCCTTTCGAGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCAC
CACTTTATAGAGGGTGTAATAAATAAACAGANATCAAGGGAGAAAGAAAAGATGAAAGAC
AACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCANATTCTGAGGCTTTG
CATGTCTTGGCATTCTTTCAGGAGCTGAATGAAAAATGCAACAAGCANATGAAGACTCT
GAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGA
AGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCA
AGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGG

Sequence 1209

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAAATA
AACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAATTTGNCAAAATG
CGACTTTNTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAG
CTGAATGAAAAATGCAACAAGCAGATGAAGACTNTGAGAGGGGTTTGGAGTCTGGAAGC
CTCATCCCTTNAGCATCAAGCTGGAATGGGAANGAAGAATAGAGATGTGGTGCCCACTA
GGCTACTGCTGAAAGGGAGCTGAAATNTCCTTCCACCCAAGTTGGTATTTCAAAATATGT
NATTGACTGGATANGGGGCAAAAGGATTTGGACTAAGACACTGGGC

Sequence 1210

GCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAACGGCCATCCACCACTTTATAG
ACGGGTGTAATAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCATAATTCTGAGGCTTTGCATGTCTT
GGCATTCTTTCAGGAGCTGAATGAAAAATGCAACAAGCNGATGAAGACTCTGAGAGGGG
TTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGA
GATGTGGNGCCCACTAG

Sequence 1211

CGGAAANTTGGGGGGCCCCCTTNCCTTAAGAAAAGGCCATTGGCTTNCCGAAGGCGGGGGC
CCCGCCCCAAGTTGGTTGGAANTGGGGGATTATTNCTTTGGCCAAGAAAANTTTCCGGGG
GGNGTTTTNAAGGGNGGGGGGGGGGGGGCCCCCCCCGAGGCCCCCAAAAGGGGTNAACCCCCC
TGGGGGGNAANAGGGGGGGGAAANNTTTNNNAAACCGGNNAAAAACCCCCCAGGGGGGGG

TABLE 1

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CCCCCGGGGGGGGAAAAAANCCCCNNGGGGGGGGAAACCCCCCGG

Sequence 1212

GACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGT
GAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAG
AAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGA
GCAGATTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAA
CAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCA
AGCTGGAATGGGGAATGAAGAATAGAAGATGGTGGTGCCCACTAGGCTACTGCTGAAAGG
GAGCTGAAATTCCTCCCAAGGTTGGGTATTCAAAAATATGTAATGACTGGGTATGGCAAA
AGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCT
GGGTCTTGAGAGAGCCCAAAGGAGTTCTGGGAGAGGGACCAGATGGGGGGGTA

Sequence 1213

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATA
GAGGGTGTAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTCATGTCTTG
GCATTCCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAG
ATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTAT
TCAAAATATGTAATGACTGGTATGGCAAAAGATTGGAATAAGACACTGGCCATACCACTG
G

Sequence 1214

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAG
TGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGG
GAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGTCAAAATGCGACTTTCTAAAAAT
GGAGCAGATTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATG
CAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCA
TCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAG
GGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAA
GATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAAT

Sequence 1215

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGA
CAAGGCCATCCACCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGAAAGA
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TTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGC
AGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG
GAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGA
AATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAA

Sequence 1216

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTG
AAGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGA
AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAG
CAGATTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAAC
AAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAA
GCTGGAATGGGGAATGAAGAATAGAAGATTGTGGTGCCCACTAGGCTACTGCTGAAAGGG
AGCTGAAATTCCTCCCAAGGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGA
TTGGAATAAGACACTGGCCATACCACTGNCAGGGTTATGTTAACACCTGAATTGCTGGGT
CTTGAGAGAGCCNAAGGAGTTCTGGGAGAGGGACCAGATGGGGG

Sequence 1217

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATA
GAGGGTGTAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTCATGTCTTG

TABLE 1

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GCATTCCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGAATGAAGAATAGAG
ATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCCAAGTTGGTATT
CAAAATATGTAATGACTGGTATGGCAAAAGATTGGAATAAGACACTGGCCATACCACTGG
CAGGGTTATGTTA

Sequence 1218

CCGCGGTGGCGGCCGAGGTACTTCTTACAGTCTTCAGGAAATTCATTAATCAGTGCCTC
CAGTTCCTTTGGCTTCCAGTTTTGAAGGGTCTTCAGAGGTCTTATTCTCCTTTGGCTGCT
GGCTTGCAAGGAATCAGGATGTACTGTTCCCTGTTGGCCGAGTGGAGACTGGNGTTCTCAAA
CCCGGNATGGTGGTCACCTTTGCTCCAGTCAACGTTACAACGGAAGTAAATCTGTGAA
ATGCACCATGAAGCTTTGAGTGAAGCTCTTCTGGGGACAATGTGGGCTTCAATGTCAAG
AATGTGTCTGTCAAGGATGTTCTGCGGGGCAACNTTGTGGTGACAGCAAAAATGACCCA
CCAATGGAAGCAGCTGGCTTCACTGCTCAGGGTGATTATC

Sequence 1219

CCGCGGTGGCGGCCGCCGGGCAGGTACCCTGATGCTACAGACGAGGACATCACCTCACA
CATGGAAGCGAGGAGTTGAATGGTGCATACAAGGCCATCCCCGTTGCCAGGACCTGAA
CGCGCCTTNTGATTGGGACAGCCGTGGGAAGGACAGTTATGAAACGAGTCAGCTGGATGA
CCAGAGTGCTGAAACCCACAGCCACAAGCAGTNCAGATTATATAAGCNGGAAAGCTTATT
GATTANAAGCAATGNGCNTTCCGATNTGATTGATNNGTNAAGNAACTTTTTNAAANGTN
ANCCCTGAATTNCCNNNACCCAATTAATTTTTNANCCCTTTAAAAATTTTNTCTNG
GGNTGGGGCCCCCCCCNAAAANTTAGGGNANAAAAAATATNAAANCCCNAAAAATTTTT
NNNTNTTTTTCTAAAAAATAAAAAACCCNCCNTTTTTGGGGGGGGCATTTAAAAGG
GGGAAAAAAATTCGAATTTTTNCCCTTTTNTTTTTANCCNAAAAAAAAAAAAAT

Sequence 1220

CCGCGGTGGCGGCCGAGGTACATTGGCACGTACGATGTCTTGAGTTTCATTCACTAGGT
GGCAGCCTGCATCGTTCCACTGCAAAATGACTGAAATCCAAAACACACAATGAGGCTGGC
TCAGGTTTGACTCTATCTTGAAAAAATAGGAAAACCTCATTTATGGAATAGTTTTGAA
TAACCGTGGATATCACAGGTCCATTGACCTGAGCATTTCCATTTTTGGAACGGGTAGAA
TGTTCCCCAGAGTCAACGAGGCCATGCTGATAATAGTTTCTGGAAGGGATCTCTGGAATT
GGTCTGACCCAATTAACACACGGCCTCTGATGGGAATAGATGTATTTTGGGGACACATTT
TAATCTGATAGCTGTAACCCCTTTTGAGTTGGCTTTTGTTCACTGGAATCCCTTTCCAGT
CA

Sequence 1221

ATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACA
AGGCCATCCACCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGAAAGAAA
AGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATT
CTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAG
ATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGA
ATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAA
TTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGGTATGGCAAAAGATTGGAAT
AAGACACTGGCCATACC

Sequence 1222

CCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAGGCAGATGAAGACTCTGA
GAGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATGNAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCCAAGG
TTGGGTATTCAAAATATGTAATGACTGGGTATGGCAAAAGATTGGGACTAAGACAC

Sequence 1223

CGACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAA

TABLE 1

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TGAANGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAA
TCAAGGGAGAAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCT
AAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCNNTTCCTTCAGGAGCTGAATGAA
AAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCT
TCAGCATCAAGCTGGGAATGGGGG

Sequence 1224

CCGCGGTGGCGGCCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAATATGTAATGACTGGTATGGCAAAAAGATTGGACTAAGACACTGGCCATAC
CACTGGACAGGGTTATGTTAACACCTGGAATTGCTGGGTCTTGAGAGAGCCCAANGGAGT
TCTGGGGAGAGGGACCAGATTGGGG

Sequence 1225

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATA
GAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTG
GCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAACAGAA
GATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGGTTGGG
TATTCAAATATGTAATGACTGGTATGGCAAAAAGATTGGGACTAAAGACACTGGCCATAC
CACTGGACAGGGTTTATGTTAACACCTGAANTGCTGGGGTCTTGAGAGAGCCCAANGAGT
TTNGGAGAGGGCCAGATGGGGGGGTAG

Sequence 1226

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATA
AACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATG
CGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAG
CTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGC
CTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAAGATGTGGTGCCCACT
AGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAAT
GACTGGTATGGCAAAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTT
AACACCTGAATTGCTGG

Sequence 1227

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCCAGGAAGTGAAGTAAAA
CCTGGTCTTGGTTGATAGGCCCCAGGTTGGCTTGGAGCCATTCCAGGTTGAGAGGCAGGA
GCCACAGTATAATTAGTAGGCTGAGAAGTTTGGGCAGTGAAGTTTGTGCAGGATAATTG
CTCGCCTGGTACTCTTGAAGTCCACCTCGTTGTCCCTGTTGCTGTCCAAGTTGCTCATC
AGCTTCTGGAAGCAGCTTCACCTGTCCTTTTCCCAAGAAGCTGGGCAGCTCCCGGGTC
AGCAGCTCCTTTAGTTCTGACTTGTTGAGCTTGAACCTGTCACCCTCTTTGCCCGAGTAC
CTGCCCC

Sequence 1228

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGA
AGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAA
AGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGC
AGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACA
AGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATAGAAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGGTATGGCAAAAAGAT
TGGACTAAGACACTGGCCATACCACTGNCAGGGTTATGTTAACACCTGAATTGCTGGGTCT

TABLE 1
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TTGAGAGAGCCCAAGGAGTTCTGGGAGAGGGACCAAATGGGGGG

Sequence 1229

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTG
AAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATNAACCAGAAATCAAGGGNGA
AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAG
CAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAAC
AAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAA
GCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATT
GGACT

Sequence 1230

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGGTCTTC
TAGTCCGGTAAACAGAGGGCCTGCCCCGACAGCTTCTGCTTCCGGGTACGCCTTGACA
GCGGCTTTCAACCCCCACCTCAGCCCAGCAATTCGTTTGGAGCATGTGAACACCTTGAGC
CTTGATGAGTTCCAGTNTGTGGTATATTATGCAGNGCNTTCAGNGAAAAATNCTTTNTN
CGGGNNTTNAANNAAAAAANANTNNGGTGCCATGNTNTTNCCCCNNNNNTNNGGGGGGG
GCCCCCTCAAANGGGGGGGGGNACTATNANNNNCCCTNTTTTTTGGGGNNCNANNTNN
ACNCCNTTTNTTNGGGCCCCNTTTTTTGGGGGNAAAAAACCCCCCCTNNGGGGGGG
GTATTTTCNTTTTNNGAAAAAAAAGGCCCGGGGNGACCCCCCNGGTGGGNTTAN
ANAAAAAAAANTCNCCCNNTTNTTTTTTTTTTAAAA

Sequence 1231

AGGTACGCGGGGCTTTTCCGTGCTACCTGCAGAGGGGTCCATACGGCGTTGTTCTGGATT
CCCGTCGTAACCTAAAGGGAAATTTTACAATGTCCGGAGCCCTTGATGTCCTGCAAATG
AAGGAGGAGGATGTCCTTAAGTTCCTTGACAGCAGGAACCCACTTAGGTGGCACCAATCTT
GACTTCCAGATGGAACAGTACTCTTGGAAGTCCACCTCGTTGTCCCTGTTGCTGTCCAAG
TTGCTCATCAGCTTCTGGAAAGCAGCTTCATCTGTCTTTTCCCAAGAAGCTGGGCAGC
TCCCGGGTCAGCAGCTCCTTAGTTCTGACTTGTTGAGCTTGAACCTGTACCCTCTTTG
CCCGAGTACCTGCCCC

Sequence 1232

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGAA
CAAAAAGGAACCAGAGGCCACTTGTATATATAGGTCTCTTCAGCATTTATTGGTGGCAGA
AGAGGAAGATTTCTGAAGAGTGCAGCTGCCTGAACCGAGCCCTGCCGAACAGCTGAGAAT
TGCACTGCAACCATGAGTGAGAACAATAAGAATTCCTTGAGAGCAGCCTACGGCAACTA
AATGCCATTTCAAC

Sequence 1233

GCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAANTGAAGTGTGAAGACAAGGCC
ATCCACCACTTTATAGAGGGNGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAGATG
AAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAG
GCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAA
GACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTNATCCCTTCAGCATCAAGCTGGAATGGG
GAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTNCT
CCCCAAGNTTGGTATTCAAAATATGTAATGACTGNTATTGGCAAAA

Sequence 1234

GCNATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGAC
AAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGA
TTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGC
AGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG
GAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGA
AATTCCTNCCCAAGTTNGGTATTCAAATATGTAATTGCTGGTATGGCAAAAGATTGGACT
AAGACACTGGCCCTACCACTGGACAGGGGTATTNTTTAACCCCTGAATTTGCTTGGGT

TABLE 1
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CTTTGAGAGAGCCCCAAGGGGGTTTTGGGAGAGGGGACCCANAATTGGGGGGTAGGTC
Sequence 1235
TGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGGCCATCCA
CCACTTTATAGAGGGTGTAATAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGA
CAAAGTGCAAAAAATTGCCAAATGCCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTT
TGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACT
CTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAT
GAAGAATAGAAGATGTGGTGCCCACTAGGCTACTGCTTGAAAGG
Sequence 1236
TGGACTCCACCGCGGTGGCGGCCGAGGNACAATACACTAGAAACCAACATAATGTATTTT
TTTTAAACCTGTGNGAAAAAATAAATGTTCCACNAGTAGGGATAGGGGAAAAGNAACCA
AAAGAGAGAAAGAGAAAGGAATGCTGGTTNATCTTTGTANGTNGTAATCGAATGGAGAAA
TTTGCAGTATTTTANCCACTATTAGNGAAATTTTTTTTTTTTTTGTCAAAATGANAGACT
GGAACCTCTGTTCAANATGCTTTNATTGNAACTCTGGTTTTGAAGACCGGGNNNGGNA
GCAANNAAAAACGTNGGAAACCTNNGATGGACNTAAAGGGGCNNTGGNNGCCAAAGGG
ACCTTGGGGGAAAANGTCCACTTTGAATANANAAGCATGGGGNNGGGNGNATTTTTCCC
CCCCCTTTTAAAAANATGGTNTGGAATAATTTTAAANNNGGNATATTAACCAACCTTT
NTT
Sequence 1237
GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTGTGATATCCACATAT
TTTCGATAAAATTCCAAAGCCAGGCGAATGTGGATTGGAATAAAGACATAGGCAGTGTA
TACCACCATAGCAATAATGGTTAGTAAGATGGTGTTAAACATAGATCGCTCCCAGGGCTC
TAAACAGCACAGCAGCTAATGATTTGGTATTGATAGTAGAGCCAGGAGAAATATTCCTT
CACACGCCTCAAATCCATGGTTGGCTCCTTCAAGCTGCAGTAAGTTTGTCTAAGAAAGT
CCAGGTCTGGTTCTTCAGCCTTGCTCCTTCGCGAAATGATCCTGTGTGGGTAGTTCTCC
TCTCTGGGTTGCTGTTTCCTCATCTCCAGTTGGGTGTATCTCCCTGCGGCTTAGGTGAG
CGCCGAGGCTTTGGC
Sequence 1238
AGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGA
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AAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAA
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CTGAAATTCCTCCACCAAGTTGGGTATTCAAATATGTAATGACTGGTATGGCAAAAGAT
T
Sequence 1239
AGCTCCACCGCGGTGGCGGCCGAGGTACGCGGGGGGCAGAAGAGGAAGATTTTTGAAGAG
TGCAGCTGCCTGAACCGAGCCCTGCCGAACAGCTGAGAATTGCACTGCAACCATGAGTGA
GAACAATAAGAATTCCTTGGAGAGCAGCCTACGGGNAACTAAAATGCCATTTACCTGGA
ACTTGATGGANGGGAGAAAATCCTTGAATGATTTTGAAGACAAAAGTTATTTTTTACC
CGGCACTGAAGATTTNCAGCAATCCGTTGGAATNTCAAAGGCCACCAANGGTGCCAA
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GTTTTAAANTNCCTACGGCCAAAGGNAAGCATTGGCNTGNACCCCAAGGGCCAAGGAAA
AATCCANNTAAAAAGNTTCTTGGNGTCCACCCNTGGG
Sequence 1240
AGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGG
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TGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTG
AGGCTTTGCATGTCTTGGCATTCTTTCAGGGAGCCTGAATTGAAAAAA

TABLE 1
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Sequence 1241

AGCTCCCCGCGGTGGCGGCCGCCCGGGCNGGTACGCGGGGGAGACATTCCTCAATTGCTT
AGACATATTCTGAGCCTACAGCAGAGGAACCTCCAGTCTCAGCACCATGAATCAAACCTGC
CATTCTGATTTGCTGCCTTATCTTTCTGACTCTAAGTGGCATTCAAGGAGTACGGGAAGG
CGAAGAAAAGAATAGAGAAGATAGGGAAATTAGAAGATAAAAACATACTTTTAGAAGAAA
AAAGATAAATTTAAACCTGAAAAGTAGGAAGCAGAAGAAAAAGACAAGCTAGGAAACAA
AAAAGCTTAAGGGGCAAAAATTGTACCTTCGGCCCCGCTCTAGAAGTGTGGGATCCCCCG
GGCTGCAG

Sequence 1242

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTG
AAGACATGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGA
AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCCGACTTTCTAAAAATGGA
GCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAA
CAAG

Sequence 1243

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGT
GTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGG
AGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATG
GAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGC
AACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCAT
CAAGCTGGAATGGGAATGAAGAATAGAGATGTGGTGCCCACTANGCTACTGCTGAAAGG

Sequence 1244

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATA
GAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTG
GCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAG
ATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTAT
TCAAAATATGTAATGACTGGTATGGCAAAA

Sequence 1245

TGGTACTGCTAAAGTCATGACAGCCCAACAGGTGATGTTTTACTGGATGAAACTCTGAAA
CACATCAAAGCAACTGAACCCACAGAACTGTCCAAACATGGATAGAGCTACTCACTGGT
GAGACCTGGAACCCCTTCAAATTACAGTACTGTTCTGTTGGCCGAGTGGAGACTGGTGT
TCTCAAACCCGGTATGGNGGTACCTTTGCTCCAGTCAACGTTACAACGGAAGTAAATC
TGTCGAAATGCACCATGAAGCTTTGAGTGAAGCTCTTCCTGGGGACAATGTGGGCTTCAA
TGACAAGAATGTGTCTGTCAAGGATGTTCCGTGCTGGCAACCGTTNCTGGTGACAGCAA
AAATGACCCACCAA

Sequence 1246

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGT
GTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGG
AGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATG
GAGCAGATTCTGAGGCTTTGCATGTCTTG

Sequence 1247

AGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGA
AGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAA
AGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGC
AGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACA
GAGCATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATAGNAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAAGATT

TABLE 1
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GGACTAAGACACTGGCCATACCACTGGACAGGGTTTATTGTTAACACCTGAATTGCTGGG
GTC

Sequence 1248

GAGCTCCCCGCGGTGGCGGCCGNGGTACATAAAACATTATTCCTTCCTTGGGCTAAAAAC
TTTTTGCCACCTACATTAAAGCTAATATGCCTGNTTACTGTTTTAGAGAACTTATTTTA
TTAGGGCAGTTCCAAGCTCAAAAATACGCTAACTGGCACCTTGTTAGCTACATAAAAATG
CACCCTAGACCCGAAACTTACTAGACTCATTATAAAATTTTNTTTAAGGTGTCCACGCAG
NCCCTGGTCACACTTGAAGCAGTCCGGAGAAATATNAGCCCTACCCAGTAATCCCCAGA
AGGAACTTACACTTTTTTTTAACTTTTCTACAACCTNCATATTTTATAAATAAAAAGAC
ANAAATGTCAGGCCTGTGAGCTGAAGCTTAGCCAT

Sequence 1249

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACGCGGGGAGTGG
GAAGCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGAGGGAGA
TACACCCAAGTGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCCACACAGGA
TCATTTTCGTGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTAC
TGCAGCTTGAAGGAGCCAAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTC
TACTATCAATACCAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCCGATCTAT
GTTTAACGCCATCTTACTAACCATTATTGCTATGGTGGTATACACTGCCTATGTNTTTAT
TCCAATCCACATTGCGCTGGCTGGGAATTTT

Sequence 1250

GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGC
CATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGAT
GAAAGACAACTGCAAAAATTTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGA
GGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGA
AGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTCAGCATCAAGCTGGAATGG
GGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCC
TCCACCAAGTTGGTATTCAAAATNTGTAATGACTGGTATTGGCAAAA

Sequence 1251

CTNCTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAA
GACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAA
GAAAAGATGAAAGACAACTGCAAAAATTTGCCAAAATGCGACTTTCTAAAAATGGAGCA
GATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAA
GCAGATGAAGACTCTGAGAGGGGTTTTGGAGTCTGGAAGCCTCATCCCTCAGCATCAAG
CTGGAATGGGGAATGAAGAATGGAAGAATNGTGGTGCCCACTAGGCTACTGCTGAAAGGG
GAGCTTGAAATTCCTCCACCAAGGTTTGGTATTCT

Sequence 1252

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATCTTGAGAAGGATT
GAAGGACAAGTTTGTGGCCCTGACCATAGATGATATCTGCTTCTCGCTCAACGACAACCTC
ACCAAACATCAGATATTCTGAGAACGCCGTGAGGATTGAGCCAACTCCGTGAGTCTGGA
AGACTGGTTGGACTTCTCCAGCACCAATGTGGAGAAGGCTGACAAGCAGCGGAACAACTC
CCTGATGCTGAAAGCCCTGGTGGATCGAATCCTGTCCAGACAGCCAATGGATCTGTGCA
AGCCAGTGTGATTGTGGTGGACACCGGCATTCAAGAATGGGCCTGAAGGGATCAAAGGGA
TGCCAGGGACAAGCTGGGCTTGATCATCTGGCCCAAGGTATTNGGAAAGAGATTGCTTCC
CAGGGAAGAAAA

Sequence 1253

ACTNAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGAC
AAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAA
AAGATGAAAGACAACTGCAAAAAATTTGCCAAAATGCGACTTTCTAAAAATGGAGCAGA
TTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGC
AGATGAAGACTCTGAGAGGGGTTTNGGAGTCTGGAAGCCTCATCCCTCAGCATCAAGCT
GGAATGGGGAATGAAGAANGNAGATTGGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG

TABLE 1
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CTGAAATTCCTCCCCCAAGGTTGGTATTCAAAAATATTGTAATGAACTGGGTATTGGCAA

Sequence 1254

CCGCGGTGGCGGCCGNGGTACAATGATTGTCATCTCAGTAAAAGGTCTATTATCTAACTT
GCCAAACTTGTTTTACTGAGAGCCCTAAGGAACTAAAAGTCCATAATGCCGTGCACAGCT
TGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTTCTCCCTTCCAGTTCCTCAGCAGGCC
TGGCTGAAGGCCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAAATAGCAATAGCAA
TAAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCACCTCTCCCGGATCAG
GCTTCCATTGCTCACGATGCTCACGCTGGGCAGCCGCAACTCTACTTTGCAGAACCTCAC
CAACTTGCCCAAGGTATTCTCCCCGGTCTTGA

Sequence 1255

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCATGGTACGCGGGGG
GGTGGAGAGAGGCCTCTAGACTTCAGTTTCAGTTTCCTGGCTCTGGGCAGCAGCAAGAAT
TCCTCTGCCTCCCATCCTACCATTCAGTGTCTTGCCGGCAGCCAGCTGAGAGCAATGGGA
AATGGGGAGTCCAGCTGTCCTCGGTGCCTGCTCANAAGCTGGGTTGGTTTATCCAGGAA
TACCTGAAGCCCTACGAAGAATGTCAGACACTGATCGACGAGATGGTGAACACCATCTGG
GACGTCCTGCAGGAACCCGAACAGTTCCTCCCTGGNGCANGGAGTGGCCATAGNGGGCTCC
TATGGACGGAAC

Sequence 1256

TGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAANGGCCATCCA
CCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGA
CAAAGTCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTT
TGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACT
CTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAT
GAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCT

Sequence 1257

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACA
AGGCCATCCACCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGAAAGAAA
AGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGAT
TCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCA
GATGAAGACTCTGAGAGGGGTTTGGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG
GAATGGGGAATGAAGAATAGAAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTG
AAA

Sequence 1258

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGT
GTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGGG
AGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATG
GAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGC
AACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCA
TCAAGCTGGAATGGGGAATGAAGAATAGAAGATTGTGGTGCCCACTAGGCTACTGCTGAA
AGGGAGCCTGAAATTCCTCCCCAAGGTTGGGTATTCAAAAATATGTAATGACTTGGTATG
GCAAAAAGATTGGGACTAAAG

Sequence 1259

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCTTTGTTT
TGGCACACTTTTCTGACAAACAGCCAGTGTCTCAATACATAAATACTAGTCCACGTTA
ACAACAATAGCATATGAGACCGCTCTCCGTAAAGATGCCAGATTGGATGCAATGGACTG
GAAATACCTTGGAGGGTTTCACAAAAATAAGACAAAGGGCAAAGGAAGCTTTGCCAAAGGA
GATGGAGAGCAATTCTTTAAAGATAGTGGGAGGGAGGAAGCAAAGAGCTCATAAATACAA
GCCTCTTAAATGGGACGCATTTGCCTCGCGCCTCTGGGGTGTCTGCAGCTCAGCNTTGG
TGCCCCACACGGGACACCCGACTTTT

Sequence 1260

TABLE 1
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TAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTTCAATGTCATT
AACCATAAATGAGCATTTACAATCTGGATTAAATGTCACATGGTATTAAGTCTACACTTA
GAGTAATGCTTTTACTGATTTTTAAAAATATATGCATATGTTTAGTGATCGAGAAAAGTG
AAATACTGGAGTACTTTTTTTTTTTTTTTTTTTTGGCTTGATGAGTAGGTGAGTTTATT
GGGACTTACACACAGGTCAATCCTGGGCGGCGACAAGACAGCTCTAGAGATCTGAGCTTC
CTCCCAATGCTAAACTGCTTTCATGCTAATTTTCTGACTGTTTACTTACCCGGGGTAAGA
GCGATGGGGACTGTTTTCAATTGG

Sequence 1261

TNCTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGT
GTGAAGACAAGGCCATCCACCACCTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGG
AGAAAGAAAAGATGAAAGACAAACTGCAAAAATTGCCAAATGCGACTTTCTAAAAATG
GAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGC
AACAAGCAGATGAAGACTCTGAGAGGGGTTTTGGAGTCTGGAAGCCTCATCCCTTCAGCA
TCAAGCTGGAATGGGAATGAAGAATAGGAGATGTGGTGCCCACTAGGCTACTGCTGAAA
GGGAGCTGAAATTCCTCCACCAAGGTTGGGTATTCAAATATGTAATGACTGGTATGGCA
AAAGATTGGG

Sequence 1262

TGGCGGCCGCCGGCAGGTACGCGGNGCAGAAGAGGAAGATTTCTGAAGAGTGCAGCTGCC
TGAACCGAGCCCTGCCGAACAGCTGAGAATTGCACTGCAACCATGAGNGAGAACAATAAG
AATTCCTTGAGAGCAGCTACGGCACTAAAATGCTTTCACCTGGAAGTTGATGGGAGGG
AGAAAACCTCCTTGATGATTTTGAAGACAAAGTATTTTACCGGACTGAGTTTCAGAATCG
TGAATTCAAAGCCACAATGTGCAACCTACTGCCTATCTAAAGCACCTCAAAGGGCAAAC
GAGGCAGCCCTGGAATGCTTACGTAAAGCTGAAGAGTTAATCCAGCANGAGCATGCTGAC
AAGGCAGAAATCAAAGTCTGGTCACCTGGGGAAA

Sequence 1263

CGAGGTACCCAGGCCTGCAAATCTCCTGGCAGGATGGTCAGGAACTGCTCTAGCACCAGC
AGTTCCAGAATCTGTTCCCTGGTATGGATCTCTGGCTTCAGCCACTGACAGCAGAGCTCC
CGGAGGCGGCTCAGTGCCCTCGCGAGGTCCAGGAGAATCCTGGTAGCAGAACTGCCTAAAA
AGCTGCCTGCAGAGCTCCTGCTTAAGGAGTTCACCTCTCTGTAAGCAAGTGCTCTGCCA
TGGATAAATTCTTCTCTTCTATCTTCACTATCAGAAGTCCTTCATCCTCTGGAGAGTTC
TGGGCTGCAGCTTTCTTTGGTTCTGTAGCCATCTCTCGGACAGGGCTGATTCCGATCGGA
CACTTCCGGTGGAAGGACTGAGCGGCGCTACACTTCAAGAATTCGTCACAGGGACTTG
TGAGTCTGCGCAGAAGGCGGGATGCCTTTGGACTACGATTCCAAGAACTCCTTCTGGGTC
TCTTCGGGCGCAGACTTTTCGCCAAAGTCCTGAAGATCTCAGGGCTTGAAGGAGGGGCA
TCCTTCTTCTTATTGNAGTAGTGTGTCTTGCTAAATAACAGAAGGGACTCCTGAAAAGA
AAATGACGTTGGCCCGGGCGCGGGGGCTTACGCCTGCAAGTCCACACTTTGGGAGGCCGA
ACNNGCNGATCACGAAGGTCAGGAGATCGANGACTATCTGGGTACGCGNGACACCCTG
NGTTTCTTAAATCCANAAAAAAAAAAAAAAAAA

Sequence 1264

GGCGAATTGGACTCCACCGCGGTGGCGGCCCGAGGTACAGAGATTTATAATGTGCTGCTC
TAGGTCCTATCGGGTAAAGGGATCAGCAGATGTGAAGTCAAGAGTCTCCTGTAAGATTTG
ACTTTCCTGGAAACATATTTAATCCTGGGCCTCCTNTTCAAATCACCTATTTCTTTA
GTTTTTGCAGTGATACTGTGTGTTGCTTCTAACAGAGGTTCAAGTTTCACAGCCTTTCCC
TCAAGTGTCTTATCCTAAAAGTAAACCTAGATGATCTAAGGTGGTGGNTTTCACAGGG
TGCAAAATTTGCCTCCTATACTCGCAACACCCAGNGACAGTTGGCTATGTCTNGGAGACAT
TTTTGNGTTNTCACACCTGGANNNAGGGTGGGGGAGGTGGNGCTAATGACANCAAGNTGG
CCNTAANCCAATNATGCTGATANAAATNCTACANTGCACAAGGATAGGNTCCACANAAAC
ANAAGNCTTANCCAAACCCCAAATACTAACAAT

Sequence 1265

CCGCGGTGGCGGCCCGAGGTACAAGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTT
GCCAAACTTGTTTACTGAGAGCCCTAAGGAATAAACTGCCATAATGCCGTGCACAGCT

TABLE 1
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TGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCTTCCAGTTCCTCAGCAGGCCT
GGCTGAAGGCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAATAGCAATAGCAAT
AAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCACCTCTCCCGGATCAGG
CTTCCATTGCTCACGATGCTCACGCTGGGCAGCCGCAACTCTACTTTGCAGAACCTCACC
AACTTGCCCAGGTATTCTCCCCGGTCTTGAAGAAATGGCTCTCCACCTGAAAAGTTGATC
TTCTCCATACCAGCTTCCTTAAGCAAAAGCAATCCTCTCTTTGCTTCTCAAGGGGCAGC
ACAAAGGATGTTTTGGCTGTGTGGAAACAGAAGCCCGCATTTGTAGTTGCACTGGCGAGT
GAAGTGATAGTTGACGCTGGTTGGGGTGGT

Sequence 1266

CCGCGGTGGCGGCCCGCCGGGCAAGGTACTTGCTAACTTTGACGCCAGCATCTCTGAAAG
ATCCCCATCGAAGGCCGGTCATTGCAAATACAGGCTGTTCTTTTACCCTTGATCTGCA
AGACATCAAGTGGAACTGTCTCTCTTTTCAATGGCAAGTGTGGCATCAGTAATATGTT
GGACTTTGTTTCCACTTTTCGGCAAAGAGGGTATGACTCAAATACTGGTCTCTCCAGTG
GGATAATCCAATGGGAATCTTACTGAAGGTAGCCTCATCTGTTCTGTCGAAGAACACCAA
GTAACAACCTNCTGCAGTGTCCCATCTCCTTCTGNAACAATGGATCACATTCGGNGTT
TTCCATCAGTTNCAAGGAGGTTTNTTNGGCTTGGGCCCTTAANAAATCTGNGCTTAAACA
AAAAGGCCNATTCCTTCCCAAATAAAAANGGAAAAANTCGGGGGCCNCAATTTTTTTT

Sequence 1267

CCTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGT
GAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAG
AAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGA
GCAGATTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAA
CAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCA
AGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGA
GCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGGTATGGCAAAAGA
TTGGAATAAGACACTGGCCATACCACTGGACAGG

Sequence 1268

GGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAA
ACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGC
GACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAGC
TGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCC
TCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAG
GCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAATGA
CTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAA
CACCTGAATT

Sequence 1269

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACTTCTACAG
AGATCCTGAAGAGATTGAAAAAGAAGAGCAGGCTGCTGCTGAGAAGGCAGTGACCAAGGA
GGAATTTCAAGGGTGAATGGACTGCTCCCGCTCCTGAGTTCACTGCTACTCAGCCTGAGGT
TGCAGACTGGTCTGAAGGTGTACTCTTGGTTTATCAATGGGACGTTCCAGCAATCCACAC
AAGAGCTCTTTATCCCCAACATCACTGTGAATAATAGCGGATCCTATATGTGCCAAGCCC
ATAACTCAGCCACTGGCCTCAATAGGACCACAGTCACGATGATCACAGTCTCTGGAAGTG
CTCCTGTCTCTCAAGCTGTGGCCACCGTCGGCATCACGATTG

Sequence 1270

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATA
AACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATG
CGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAG
CTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGC
CTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGGAGATGTGGTGCCCACT
AGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAAT
GACTGGTATGGCAAAAGA

TABLE 1
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Sequence 1271

ACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCCGGGCAGGTACCTCAT
TTTTATTTTAAAACCATTCAGCACATTTATCTTATGTAACATGCAGAGCATATATCTAT
CTGTATTTTAAAATTTTCCTGTTACTCATTGATACATAGTACTTCCTTGATGTTGTTGG
AGTCCGTGAGAAACATGGCGACTCGATCAATGCCCATGCCCCAGCCAGCTGTGGGGGGCA
GCCCATATTCCAGGGCAGTACTCAAAGGTGATTTTGCTTTTTCAATGCTTCAGGGGAA
AAATCCTTTTCTTTA

Sequence 1272

TAAGGGCGATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACCAAATGAAGTGTGAANGACA
AGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAA
AGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATT
CTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAG
ATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGA
ATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAA
TTCCTCCACCAAGGTTGGTATTCAAAATATGTAATGACTGGGTATGGCAAAAGATT

Sequence 1273

AATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACCGTGGTGACGTGGTTCCTCAAAGATGTC
AATGCTGCCATTGCCACCATCAAAACCAAGCGCAGCATCCAGTTTGTGGATTGGTGCCCC
ACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGACCTG
GCCAAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAA
AATAAACAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAACTGCAAAAAATTGCCAA
AATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCA
GGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGG
AAGCCTCATCCCTTCAGCATCAAGCTGGAAT

Sequence 1274

ATCCCCGGCGNGGCNNNNCGCCCGTTTCAGGTACTCTTTGTTTTGGCACACTTTTCCTGAC
AAACAGCCAGTGTTCTCAACACATAAATACTAGTCCACGTTAACAACAATAGCATATGAG
ACCGCTCTCCGTAAAGATGCCAGATTGGATGCAAATGGACTGGAAATACCTTGGAGGGTT
TCACAAAAATAAGACAAAGGGCAAAGGAACTTTGCCAAAGGAGATGGAGAGCAATTCTTT
AAAGTTAGTGGGAGGGAGGAAGCAAAGAGCTCATAAATACAAGCCTCTTAAATGGGACG
CATTTGCCTCGCGCCTACTGGGTGTCTGCAGCTCAGCTTGGTGCCCCACACAGGACACCG
ACTTTAAGTGGCTGCCTTTGCAAGGCTGAGAGGCCATGGAGGGGTTGATGCCTGAAGTGT
CAGCGCCATCTAGTGGAACATGGGGCATGGCCC

Sequence 1275

GGAGCTCCCCGCGGTGGCGGGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCC
ATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATG
AAAGACAACTGCAAAAAATTNCCAAAATGCCGACTTTCTAAAAATGGAGCAGATTCTGA
GGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGA
AGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGG
GGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTNC
TCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAA

Sequence 1276

AGGTACAAAATTATCATCATTTAGAGTTGATTTTTTACCAGCCCTGAATTTTCAAAT
TGTAATATGCTGTTTCAATCTTTTTATTAAATTAATTAATGATTCCAGTCTGCAAAAT
GAGCCATAAGACTTTGCTNCTGTTTGNATANGATNCATNTGGANATTGGGGGNGGGNAA
ACCATANGTAAGGTTAAACCTATCCGTACCTGCTTCATGTAAGAAAGACTCCACCACTTGN
TTGGATNTATTTTTTCTCCAGGCNACTAGTAAGAAAAAAGGTGAACAAAGGTGGATTN
CATCCCTNNCAAANTGGGCCCTTNTGGCNCAATTCTTTTTTANTAATCCTATGGTANAC
CNNTTTTGGTAGATTACCTTGGTGGTNGAATTTNAGCNGTNTTGGNGGCNTAATTNNNA
AAAAATTCTTTGGGGATTTAAATTTAAANCAAAAAACCAACCAATAAAANTTCTAA
TCCACCCNTGNGGAAATTTATTTTGAAAAGGAAAAATTTTCAGGTTAAAAACAAAGGG

TABLE 1
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ANTGGNTGGTTCCTTCCATTAGGTTTAAAGGGGAGGAGGNANNATTAAAAAAATTAAAA
AAATTGGTTCATTTTAAAACAAGGTTTNGAAATTTNAAGGGAA

Sequence 1277

AGGTACAAAATTATCATCATTTAGAGTTGATTTTTTACCAGCCCTGAATTTTCAAAC
TGTAATATGCTGTTTACAATCTTTTTATTAAATTAATGATTCCAGTNTGGCAAAT
GAGCCATAGACTTTTGCTCTGCTTGTATAAGATCANTTGAATTGGGNGGGGGGGANAA
CCANTAGTTAAGNCTAAATCTAATCCGGTCACCTGGCTTCATTGTAAAAGAACCCACAA
TTGGTCTGAATTAATTTTTTCCCAGGCACCANGAAAGNAANATNGNTGTACCAAAGNTN
GAANTACATTCTTGGCAAANTGGGGCCCTCTTTGGCCCAAATCCTTTTTTCCAATTATC
CTTATTGGTTAAAACCCCTTTTTTGGTTAAGTNTNACCTTGGGTGGTTGGAATNTTTAAA
GCCGGNCTTGGNNGGCCTTAATTTTGGTAAAAAATTTCTTTGGGGGATTTTAAATTTA
AACCCAANAANAACCANACCAANAANAATNTCNTNATTNCACCCCTTGGGGNAAATTNA
TTTTGGGAAAAAGGAAAAANATTTTCAAGTTTAAAAAACCCAAAGGAANTGGGTNGTTCC
TCCAATTANGGTNTTAAAAGGG

Sequence 1278

AGGTACATTTACACAATATTAACACTAAAAATCTGTGTTTTTTTAAAACACCATAGAAGT
CAAACCACAAAAACCCAGGATCTTGTTTTAAATGTGTTTATGAAGACTGCTGCTGAGCTC
AAAAGCATTGCAGGTAATCATGACCACCTAGATGAAAGCTGGATGTTTGAAAACTCCTTC
ATGTCCAATGAATGTAAATTTTTTACCTCATCCCCAAGGTATTCTCCCATACTTTGTTC
TACTTTTGACCTTCTTTTTTTTTTGGGNCACCTCTTTTCATGGCATAAGGGCCTNGACT
TGAGGGGGTACAGGTTCTTTTTNGTGGTNTAAAAGGAATTACTTTTCATTAATGAACCTC
CTCCTTGGTTTCTTTAATTTCCCTTTAAATTTTCTTCAATAATTGGTAAATNATTTTT
TTTTTCNTTTTTAAGNGGACC

Sequence 1279

NCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGA
CAACGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAG
AAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAG
ATTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAG
CAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCT
GGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTG
AAATTCCTCCACCAAGGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATT

Sequence 1280

GTGGCGGCCGAGGTACCAANTGAAGTGTGAATGACAATGGCCATCCANTANTTTATAGAG
GGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAA
ATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTTGCATGTCTTGGC
ATTCCTTCAGGAGCTGA

Sequence 1281

CCGCGGTGGCGGCCGCTCGGGCAGGTACCATTCCTCTACATCCATTTGGTAGCAGAACCT
CAAGTGTAAGCAGTCAGTGTAGCATGAATATGAACTGGCTCAGTTTATCACTTCCTGTTT
NGACCTGAAGCACCACCCAGCTATGCAGAAGTGGTAACAGAGGAACAAAGGCGGAACAAT
CTTGACCAAGTGAGTGCTTGTGATGACTTTGAGAGAGCCCTTCAAGGACCACTGTTTGCA
TATATCCAGGAGTTTCGATTCTTGCTCCACCTCTTTATTAGAGATTGATCCAAATCCT
GATCAGTCAGCAGATGATAGACCATCCTGCCCTTTTGTGAAGGAACACTTGTTGA

Sequence 1282

GAGTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACATAAAACATTATTCCTTCCTTGGCC
TAAAAACTCATCGCCACCTACATTAAAGCTAATATGCCTGATTACTGTTTTAGAGAACT
TATTTTATTAGGGCAGTTCCAAGCTCAAAAATACGCTAACTGGCACCTTGTTAGCTACAT
AAAAATGCACCCTAGACCCGAACTTACTAGACTCATTATAAAATTTTCTTTAAGGTGTC
CACGCAGTCCCTGGTCACACTTGAAGCAGTCCGGAGAAATATCAGCCCTACCCAGTAAT
CCCCAGAAGGAACCTTACACTTTTTTTAATCTTTTCTTACAACCTTCATATTTTATAAATA
AAAAGACAAAAATGTCAGGCCTGTG

TABLE 1
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Sequence 1283

GGTGGCGGCGCCCGNCAGGTACCAAATGAAGTGTGAAGACCNGGCCATCCACCACTTTAT
AGAGGGTGTAAAAATAAACCAGAAATCATGGGAGAAAGAAAAGATNAAAGACAAACTGCA
AAAAATTGCCAAATGCGACTTTCTAAAAATGAGCAGATTCTGAGGCTTTGCATGTCTTG
GCATTCCCTTCAGGAGCTGAATGAAAAAATGCAACANGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCANCATCAANCTGGAATGGGGAATGAAGAATAGAG
ATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTAT
TCAAAATATGNAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTG
GACAGGNTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCNAGGAGTTCTGGGA
NAGGNACCACATTGGGG

Sequence 1284

CGCGGTGGCGGCCCGCCGGGCAGGTACCCCGGGAGAGCCCGCTTCCCCCTCCTCCCTGTG
CTGTCTGCACCCGAGGAGAGCGGCCTGCCCGGAAGTGGGCCACCATATCTGGAACTACA
GTCTATGCTTTGAAGCGCAAAAGGGAATAAACATTAAGACTCCCCCGGGGACCTGGAGG
ATGGACTTTTCCATGGTGGCCGAGCAGCAGCTTACAATGAAAAATCAGAGACTGGTGCT
CTTGAGAAAACTATAGTTGGCAAATTCCTTAACCACAATGACTTCAAAATTTTAAAA
AATAATGAGCGTCAGCTGTGTGAAGTCCTCCAGAATAAGTTTGGCTGTATCTCTACCTGT
GTCTCTCCAGTTCAGGAAGGCAACAAGCAAATCTCTGCAAGTGTTCAAAAAATGCTGAC
TCCTAGGATAGAGTTATCAAGTCTGGAAGATGACCTCACCACACATGCTGTTGATGCTG
TGGTGAATGCACCAATGAAGATCTTCTTGCATGGGGGAGGCCTGGCCCTGGCCCTGG

Sequence 1285

CGCCGGGCAGGTACCAAATGAAGTGTGAAGACANGGCCATCCACCACTTTATAGAGGGTG
TAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGA'GAAAGACAAACTGCAAAAAATTG
CCAAATGCGACTTTCTAAAAATGNGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTT
TCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTC
TGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTG
CCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATA
TGTAATGACTGGTATGGCAAAAGATTGACTAAGACACTGGCCATACCACTGGACAGG

Sequence 1286

TCGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACAGGTAAGATATA
CTGGAGTCACAGAGCAATATGCATTAACAGGATACAACAGTTCATAAAAACTGAGTAACT
ATGCACACAAATTTCTTAAACAGCCACCTAAAGAGAAAAATGCACAGATGTATGGTGGAAA
CTGTATCTAACTGAACTACTACAGGACTCCATCAATGAGTCCAACCTTTAGTGATAA
AAAACTACTGTACACTACATGAAGAACCATATGTTTATAATTATCCAAATAAAAAATGAAG
TTATTAACTTCAAGATAATATGGTAATTTGCATTGAACCGATGATTTTACAAAAATCTG
CAAAGGTCAAAATTTTAAAGATGGCTGAACAGTAATTGCAGCATCTAATAAAAAACGCAG
CTCATTACCGAGCAAACGGTTTAAATTAATAAATTCAAAGGAATAATCCTGACAGGAGAA
ATAAAAAAATAGATGTCAAAGAAGATAAAATTATTTTCAAAGGAGTAGTAACCTCAAGTT
TTAACACC

Sequence 1287

CCGCGGTGGCGGCCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGNGCAGATTCTGAGGCTTTGCAT
GTCTTGGCATTCCCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAG
AGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGA
ATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGT
TGGTATTCAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATA
CCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGTT
CTGGGAGAGGGACAGATTGGGGGGTAGGT

Sequence 1288

CCGGGCAGGTACAAGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTTGCCAAACTTG

TABLE 1
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TTCAGTGAAGCAAGATAGTTTTCTCCCTTCCAGTTCCTCAGCAGGCCTGGCTGAAGGC
CCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAATAGCAATAGCAATAAGAAGAATG
CCATCCCATGGAGCACACCATAATTCTGGAACCACCTCTCCCGGATCAGGCTTCCATTGC
TCACGATGCTCACGCTGGGCAGCCGCAACTCTACTTTGCAGAACCTCACCACCTTGTTCA
GGTATTCTCCCCGGTCTTGAAGAAATGGCTCTCCACCTGAAAAGTTGATCTTTCTCCATA
CCAGCTTCCTTAAAGCAAAAGCAATCCTCTCTTTGCTTNCCTCAAGGGGCAAGCACAAAGG
GATGTTTTTGGCTGTGTGGAACAGAAAGCCCGCATTTGTAGTTTGCAGTGGCCAGTGAA
GTGATAGTTGACCCTGGTTGGGGTGGGGG

Sequence 1289

CCGGGCAGGTACCAAAATTGTAAGAAGAAGCTTGGGAAGCTGCCACCTCAGTATGCCCTG
GAGCTCCTGACGGTCTATGCTTGGGAGCGAGGGAGCATGAAAACACATTTCAACACAGCC
CAGGGATTTTCGGACGGCTTGAATTAGTCATAAACTACCAGCAACTCTGCATCTACTGGA
CAAAGTATTATGACTTTAAAAACCCCATTTATTGAAAAGTACACAGGAGGCAAGTGTTTC
ACATCATAGACTTCACTTCCAACCTCCTTGAATGTTTCTTTGGCTTACAGGAGAGA
CTAGACAGGAAGGCCAGGCAATGCTTAGGCAACTAAAATGAGGTTGGGGGTAATGCTAAC
GTCACCCTCACAGGGATGGCCACGGGACTGTTATTGCAAGCTGGTTTTCTAGGCCTGT
TAGCTGGAAGCATGGTGAGCACCATTCTGAGCCTCAGGCCGTGTCGGGCTTNAAGTCA
TCTTNCACCACACAGGTACCTTNGGGCCGGNTCTAGNAACTAGTGGGATCCCCCGGGCT
GGCAGGAAATTCGAATATCAAAGCTTTATCGATACCCGTCCGACCTTCGANGGGG

Sequence 1290

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACCTTTATAGAGGTTGTAATAA
AACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAATTGCCAAATG
CGACTTTCTAAAAATGGACAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGC
TGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCC
TCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAG
GCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAATGA
CTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAA
CACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGTTCTGGGAGAGGGACCAGATTG

Sequence 1291

AGGTCATAAAACATTATTCCTTCCTTGGCCTAAAACTCATCGCCACCTACATTAAAGCT
AATATGCCTGATTACTGTTTTAGAGAACTTATTTATTAGGGCAGTTCCAAGCTCAAAA
ATCGCTAACTGGCACCTTGNGTACATAAAAATGCACCCTAGACCCGAACTTACTAGAC
TCATTATAAAATTTCTTTAAGGTGTCCACGCAGTCCCTGGTCACACTTGAAGCAGTCCG
GAGAAATATCAGCCCTACCCAGTAATCCCCAGAAAGGAACCTTACACTTTTTTTAATCTT
TTCTACAACCTCATATTTTATAAATAAAAAGACAAAAATGTGGGCTGTGAGCTGAAGC
TTAGCCATTGTAACCCCTGTGACCTGCACATATCCGTCCAGGTGGCCTGCAGGAGCCAAG
AAGTCTGGAGCAGNCGAAAAACCACAAAGAAGTGAACAGCCAGGTTTCTGNCTTAACTA
ATTAACCCAC

Sequence 1292

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATAAAACATTATTCC
TTCTTGGCCTAAAACTCATCGCCACCTACATTAAAGCTAATATGCCTGATTACTGTTT
TTAGAGAACTTATTTTATTAGGGCAGTTCCAAGCTCAAAAATACGCTACTGGCACCTGT
TAGCTACATAAAAATGCACCCTAGACCCGAACTTACTAGACTCATTATAAAATTTTNTT
TAAGCTGTCCACGCAGTCCCTGGTCACACTTGAAGCAGTCCGGAGAAATATCAGCCCTAC
CCCAGTAATCCCCAGAAAGGAACCTTACACTTTTTTTAATCTTTTCTACAACCTTCATATT
TTATAAATAAAAAGACAAAAATGTGAGGCTGTGAGCTGAAGCTTAGCCATTGTAACCCC
TGTGACCTGCACATATCCGTCCAGGTGGCCTGCAGGAGCCAAGAAGTNTGGAGCAGCCGA
AAAACCACAAAGAAGTGAACAGCCAGTTTCTGCCTTAACTAATTAACCCACCTTACGAC
ATTCCACCATATGACTTTGTCCACCATATGACTTGTTCTGGCCTGCCCCAACTG

Sequence 1293

TABLE 1
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CCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAA
AAAATAAACCCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCC
AAAATGCGACTTTCTAAAAATGACAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCA
GGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGG
AAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCC
CTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGT
AATGACTGGTATGGCAAAAGATTGGAATAAGACACTGGCCATACCACTGGACAGGGTTAT
GTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGTTCTGGGAGAGGGACCAGA
TTGGGGGGTAG

Sequence 1294

CGAGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTCCAGGTGTTACAGCTG
CTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTG
CCCACTGGGTTTCCCAAGCTATGTAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGG
GCAGTTCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGC
ATTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCA
GTGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAAACATGTC
CTTGCTCTCGCAAGTGGCCCTGGCA

Sequence 1295

CGAGGTACCTGTGAAGACAGCTACACCTGGTTTCCTCCCTCATGCCTTGATCCCCAGAAC
TGCTACCTTCACACGGCTGGAGCACTCCCAAGCTGTGAATGTCATCTCAACAACCTCAGC
CAGAGTGTCAATTTCTGTGAGAGAACAAAGATTGGGGCACTTTCAAAATTAATGAAAGG
TTTACAAATGACCTTTTGAATTCATCTTCTGCTATATACTCCAAATATGCAAATGGAATT
GAAATTCACCTTAAAAAAGCATATGAAAGAATCAAGGTTTTGAGTCGGTTCAGGTCACC
CAATTCGAAATGGAAGCATCGTTGCTGGGTATGAAGTTGTTGGCTCCAGCAGTGCATCT
GAACTGCTGTGAGCCATTGAACATGTTGCCGAGAAGGCTAAGACAGCCCTTCACAAGCTG
TTTCCATTAGAAAGACGGCTCTTTCAGAGTGTTGCGAAAAGCCCAGTGTAATGACATTGT
CTTTGGATTGGGT

Sequence 1296

CGAGGTACAGGAGCAACCTTCTTTCCACCATTACTGGGAATTCACCACTATTTGCTCCC
CCAGCCCAGAAATCATGATTCTTCTTCATTCCATTCAAGGACTTCGGGAAAAAGTAATCGA
AATGGTCCCAGAAAAGGTGTAAATGGGTCAATAAATGGAAGTAATACATCATCTGTAATT
GGTATCAACACATCTGTACTTTTTTTTTTTTTTTTTTTTATCTAAAAGCAACATAATTA
TTTTTCTTGCGATTTTTCAAGAACTCTTTTAATTGTCTAACACCTGATTCTAGTGTAT
AGCTTCTGATT

Sequence 1297

CGCCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGT
GTAAAAATAAACCCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATT
GCCAAATGCGACTTTCTAAAAATGANAGATTCTGAGGCTTTGCATGTCTTGGCATTCTT
TCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTC
TGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTG
CCCCTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATA
TGTAATGACTGGTATGGCAAAAGATTGGAATAAGACACTGGCCATACCA

Sequence 1298

CCGCGGTGGCGGCCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACC
ACTTTATAGAGGGTGTAAAAATAAACCCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACA
AACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGC
ATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTG
AGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAA
GAATGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAA
GTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGAATAAGACACTGGCCA
TACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAG

TABLE 1

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TTCTGGGGAGAGGGACCAGATT

Sequence 1299

CGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGT
GTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAAACTGCAAAAAATT
GCCAAAATGCGACTTTTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCC
TTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGT
CTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGT
GCCCCTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAT
ATGTAATGACTGGTATGGCAAAAGATT

Sequence 1300

CGNCCGCCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTG
TAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAAACTGCAAAAAATTG
CCAAAATGCGACTTTTCTAAAAATGGACAGATTCTGAGGCTTTGCATGTCTTGGCATTCC
TCAGGAGCTGAATGAAAAATGCAACAAGCANATGAAGACTCTGAGAGGGGTTTGGAGTC
TGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATANAAGATGTGNT
GCCCCTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGG

Sequence 1301

CNAATTGGAGCTCCCCGCGNGGCGGCGGCGAGGTACAGTATGGCTTAAAAGGCTCTGCCTT
AGATTCTAGAATCCAGAACATTTTCTCAAAGACAATCAGGGTATGGGGGAGAAGTTAGT
TCCAGAGAAGAGAGCGAGTCCAGGGTAGAAGGGATTCTTCTCTCCTGAGGGTCTATGGTC
TCCCATTTTTTAAAGCAGCAGNGGTATCTATCCCACTCATGGCCTAGAGGTTGCACAGAG
CTGTCTGGCACCCGCTTCTTTGGCTTTTCTCTCCTGACACCCAGCAATGCTTACTCAGAG
CGTTGAAGGCGGCCAGCACCTCGAAAAGAGATTCTCTGATTTTTTGTGAACACCTGGATGG
TGAACCCATCAAGGGACTTCTGGATCTCGAAATTGTTTTTCAACCCTTCGTGAACAGACA
GAACCTCAGCTTATCCC

Sequence 1302

CCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTA
AAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAAACTGCAAAAAATTGCC
AAAATGCGACTTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCCCT
CAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCT
GGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGC
CCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATAT
GTAATGACT

Sequence 1303

CCGGGCAGGTACTACCATGCCGGGCCAATTTTTTTTTTTGTTGTAGAAATGAGGTCTTGC
TATGTTGCCCAGGCTGGTCTCAAACCTCCTGGTCTCAAGCGATCCCCCGCCTCAGCCTCC
CGAAGTGCTGGGATAAAAGGCGTGAACCACCATACCCAGCCAGTATTATCTTTTCATTTT
ATTTTCCAGTTGAGTATATTATTGGCTACATTTGCATACCGCACAAATTGTTCATTTTTA
AAAACCAATATTTTGTGTTGTTCTGTTGTCTACAATAAGGAGAATTCAGATGATAAACTT
ACAACCAATCATGGCCAAGTCCACTTGAGGAATTGTCTCTGTAGATTTATCTGTAGACTC
CCTAATA

Sequence 1304

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGAGTGTA AAAATA
AACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAAACTGCAAAAAATTGCCAAAATG
CCGACTTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCCCTTCAGGA
GCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAG
CCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGGCCACT
AGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAAT
GACTGGTATG

Sequence 1305

AGGTATTCGACCCACGCGCCCGTAGTTTTTATCTTTGACCAACCGAACATGACCAAAAAAC

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[illegible]

Sequence 1306

AGGTGTTAGTTACCACTTCATTACTGGAGGGCACTGTCACAACTTCTGACTATCCAGAC
TTGAAGCTGGAAGCAAATACAAGTCTGAGGGGCTCTAAGCTGGGAGGTTCTGGCCTCTCC
CTAGCTCTCTATGGCTCTACCTCTCTGCTTGAAGCTCCCTGCACTGCACTCCATTACTC
TGACTGGGGATAGGACCACTGCTGACAGGGCCCCACCTCAACTTCTTTCATTGCCCTCTT
CCAGGAAATCCCACCCTGGGATACTTCAAAGACCTCATATGCTACAAAGATCAAGGCCAC
CTAATGAGTGCTCTAGAGATCAGCACCAAAGATGCTTGCCAGAGTCTTCTCTATATGTCC
TCCCTCCTGTATCAAATAAGTCACCAAGTATAGCTGACTATCTCCATAACATCTCTCCAG
TTGTGGCCTTAGTTCAGCCTTCATCACTCTGCATTCTGAGGAGCTGATATCTGTCTCCT
GCTGCCAGCCCCTCACCCCCAGTCGGTCTCCAACATACTTTTTTTTTTTTTTTTTCGGACN
CGTGGGTCGAAAGCCTTGACCCTGCC

Sequence 1307

ACTTTTITTTTTTTTTTTTAAAGCTGCTCCTTGAGGATAAGGGCTAACTCACAGGCAGTGCA
CCAAGAGCCACTATAAAAAGATCCTTAATGAGCAAAATATATCCCTATTATTTTCCTAC
AAGTTGCTTTTTACTTGAGTAGGAACCTTGATTGATTTTTCGGACGCGTGGGTCTGAAG
CTTGACCT

Sequence 1308

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCGCCGCACTTTTTTTTTT
TTTTTTTTTTTTTTGCCCTTCAACAAAAAAGGAATTTATTGGCTCACATAAGNGAAAGC
TGANAATAGATCTCAATTCAAGTCCAATTTGATCCANAAGTCCCAAGGGCTCCAATAG
ACTCCCTNTCACCCCTGGTACCTGCCCGGGCGGGCCGCCCGGGCAGGTGTCAAGCTTC
GACCCACGCGTCCGTCTTANCCTACAAGNGGGCTNTTATGTACATAGNTGGGTAATACAT
CCAATTAATGATGTNTGACATGCTATTTTTGTAGGGAGAAAAATATGTGCTAATGATATT
TGAGTTAAAAANATCTTTTGGGGAGGATTTGCTGAAAAGTTGCACTTTTGTTACAATGCTT
ATGCTTGGTACAAGCTTATGCTGTTTTAAATTATTTAAAAAAATAAAATACTGTTTGTN
AGAAACCANCTGGTTTAGAAAAGTTTNNNTATGTGACGATAAACTAAGAAATTTCCCTTN
TTATTCCTAGTATTTTTCAGCACTCCATNAATTCTATTACCCTAA

Sequence 1309

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGT
CCGCAAGACCCAAGAGAGCTGATGGTGCAGTTCAGTCTCACAGAAGTCTGCTGGAGAAT
TTCCTCTGGATTGGAGAAGGTGGTCTTTTCATTCTACTCAGGTCTTCTATTGATTGGATA
AAGGTGCACATACATCATGGNGGGCAATNTTTTTACTCANAGGACATCTGTGCCAATGT
TATTC CATNCAGAAACACCCTCCAAGTTGACACATNAAATTTAACCAATACACTTTTCC
TTATCTTNACCCAAAANTTAAGGTTAAAGAAGTTTTNGGATNNCCCTGAATAANNNTTGG
GCCATTNGGAATGCCCACTTTTTNCCTTTTTTGGGNGAAAAAATTNTAAAATTNACCNNT
TTTTNTNAAAANTAAAAAAACTTGTTGGGCTTANGGNCCACCTNGGTTTNCANCCCTTAT
TAATTC CAGCCCTTTTTTNGGANGGNCCNANNGNCAGGNNNGGATTCCCTTTGNGCCC
CCGGGAANTTTCAANNNTTTTTNNGCCNGGGGNTAANAANAAGGNGNAAATCCTNTTT
TTTTTCANAAAAA

Sequence 1310

GGGGGGGCATTTACGCTACTTAGGGCGAATTGGAGCTCCCCGCGTGGCGGCCGCCCGG
GCAGGTCGCACTTTTTTTTTTTTTTTTTTTTACCTAGCCCATGTTACCAATCTAAATGAA

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CTGTCTATGCATAGAAAAGTCTTTATGCCTAAGATAATTACTGGGATTTAAGAAAGTGA
GAAAAAAGAATAGGTGGGATTGAGAAATTAGGTAAAAACAGAAGAGGCCAACTAAACCCA
AGTGCTGCCCTTCAAGGGCTCTAGTAACCGGACGCGTGGGTCTGAAGCTTGACCT

Sequence 1311

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAATCCCGTCTT
ACAGAAGAGAAAACTGAGATTTAGCAACATAAAAGTATTTCCCGTAAGTAAACAGTAGAG
CCAAGATCTTGACCTACGCCATCTGATACCTGAGCCCATGCTATAAAAGAGGAGCATTAG
AAATATTTGAAAGATAGAAATGAGAACTAGTCAATATTTATTTGCTTAGCACTGTATTC
AGTATTATGGCATCTTAAAGTAGTTAAGACTCAATATTTTCATCAAAAAAGTTTAAATCT
AATCAGAGAAT

Sequence 1312

TACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCG
TCCGGCCACATTTTCAATTTAGCCATTTTTCTCTTATTACCTTTTTCTGCTAATTACTC
TGTAATTCCTACTAAGAAAAAGTCAATAGATAATTCCAATAATGACTTCACTCCTGAGAATT
TTATTAGCTGCTAACGCTTGTCTCATCATAAGCACTCATATGTTCAATTGAGTAAATATTT
ATTGAGTATTTGCTATGGTCCAGGCACTGTGCTAAGTATTGAGGATAAAATGGTGATTGA
AACATTTTCCCTTCTTGATTTTAACTCTACAAAATAAAAAGTATGTTAATATCAAAAA
AAAAAAAAAAAAAAAAAAGGN

Sequence 1313

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAAGCCTCACTCACAATTATT
TTTGAGATAGCTCCCAATGAGTTTAATCACTGCTATGCCAGGTGTGTGAGGCTGCTGTGG
GACAACAATCTTGATTCCTAGAAGAGTCATAAATTTCTAGGGACTACAGGCTCCTGCCAC
CATGCCTGGCTAATTTTTGTAGAGATGGGGTTTACCCTGTTGCCAAGCTGGTCTTGAA
CTTCTGAGCTCAAGCGATCCACCTGCCTCAGCCTCCCAAAGTGCTGGGATTACAGGTGTG
GGCCATCACGCTTGCCCTAGAGTAATATTCTCTATTATCAAGGTAGAAAGTTCAACATAT
ATTCATTAGATCTACTTTATAGATACTGTTACTCAGATCACTTATATCGTTATATGTATT
TTTTGTCTTCTTAACCTCAAGTCTTGATGAGAGAAGAGGTGTTTTAAATTTCTCTGTTA
TTTCTAGGGTTCTATTCATTT

Sequence 1314

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTAGATGACAACATC
AAAACATACTCTGATCACCCCGAGAAAGTAACAAAGATGATGAGGAATTCATAGAAAGC
AATAAAATGCATGCTATTAATGGAAGAATGTTTGGAAACCTACAAGGCCTCACAATGCAC
GTGGGAGATGAAGTCAACTGGTATCTGATGGGAATGGGCAATGAAATAGACTTACACACT
GTACCTGCCCCGGGCGGCCGCGCCCGGGCAGGTCCGGGCAGGTGCTGTGAGTGCTCTGG
CGAAGTTTGGAGCCCAGAATGAAGAGATGTTACCCAGTATCTTGGTGTGCTGAAGAGGT
GTGTGATGGATGATGACAATGAAGTAAGGGACCGAGCCACCTTCTACCTAAATGTCCTGG
AGCAGAAGCAGAAGGCCCTTAATGCAGGCTATATCCTAAATGGTCTGACTGTGTCCATCC
CTGGTCTGGAGAGGGCTCTGCAGCAAGTACCT

Sequence 1315

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCAGAT
CAGACGTGGCGACCCGCTGAATTTAAGCATATTAGTCAGCGGAGGAAAAGAACTCTGAA
TCCGACCAGTGTAGGTGATTACATTAGCCTTTGAAGTCAACACAAAGTTTAAACACCTG
CCCGGGCGGCCGCGCCCGGGCAGGTGTACAAGCTTCGACCCACGCGTCCGGCTGAAGA
CATCCCTAGGGCAGGTAGCAGAATACCTAATTCAACCTAGAGAGGCACAGGCTGCACGAG
AGTCTCTCAGATAAAGCCCCATTGAAAAATAATTTACAATCTAAAATTTAAAAACCCGTT
AAAAAAGCAGCACAGCATGAGGAGTCAGTAGATACTGAAAGCAAGATTAGATCTTCAA
GACTTTCAAATATAAAATTTAGAAAAATTATAATAAATTATGAAATAGAGGCCCTTTTCAT
GTCAAAAAGTCATGAAAG

Sequence 1316

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCG
AAAAGATGAGGCAACAAGTAAGAGAAAAACAGCATTGAGCTTAGAGAATTGGAGAAGAAAT

TABLE 1
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TAAAAGCAGCTTACATGAATAAAGAAAGGGCAGCTCAGATTGCTGAAAAGGATGCCATTA
AATATGAACAAATGAAACGTGATGCTGAAATAGCCAAAACCATGATGGAAGAACACAAGA
GAATAATAAAGGAAGAGAATGCTGCAGAAGACAAACGAAACAAAGCGAAAGCACAGTACC
TGCCCC

Sequence 1317

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAGCGTGCATAG
GGACTCTTGCCCTTAAGGAGTGTAACCTTGATCTGCATTTGCTGATTTGTTTTAAAAAA
CAAGAAATGCATGTTTCAAATAAAATCTCTATTGTAAATAAAATTTTTCTTTGGATCT
TGGCAAAAAAAAAAAAAAAAAAAGTGGCGCCGGCCGCCCGGGCAGGTACACTTGTGAT
AAGAGTTTTCTGAAAACAGTCTATCAAATATAAAGAATGGTTTCTATCCAAGAATCAGCA
GTGAGGGAAGAAATACTAAACACCTGTCAAGAAATCAGTTATTCATTTAAAAATAACA
GAACCAGTGCTGCTCTGTGCATAAAAAAGAACATGTAAATTTATTTTATAGGCTTTG
GTAACATTATATCCCCACAGAGGCCTTCAATCCTACTTAAAGATA

Sequence 1318

AGGTCAAGCTTCGACCCACGCGTCCGGTTACTAGAGCCCTTGAAGGGCAGCACTTGGGT
TAGTTGGCCTCTTCTGTTTTACCTAATTTCTCAATCCCACCTATTCTTTTTCTCACTT
TCTTAAATCCAGTAATTATCTTAGGCATAAAGCAGTTTTCTATGCATAGACAGTTCATT
TAGATTGGTAACATGGGCTAGGTAAAAAAAAAAAAAAAAAAGTGGCAGCTGCCCGG
GCGGCCGGCCGCTCGTGATCTAGATCCCCGACCT

Sequence 1319

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGTT
GGGTGGAATTATAATATTTTAGATAAGATTAAAGAGGATTCTAATTCTAGCTACTTGATA
GGAATGCGAATGATGATAAGGCTTTTAGAGTTAGATAAGAGAGAGGGCTAGCACCTGAT
ATTCTGTAATTGAAACAGAGTTTCAAGTCCTTTGGTCAAGTATTACCCTTATTCCTTCAG
GAATAGTAGATATTTTAAAGATTACAGATAGGTTATCTTATCTAATTTACCTACCTATTGT
TGAAATTATTTAATTTGCATTTAACTGTGTTTTCACACCTGCCCGGGCGGCCCTCTTACC
TGCTTCTGACCTTATGCTCAAGAACTCCCCTAACTCTGGCCAGAGCTCAGCTTTGGCAAC
TCTGACCGTTGAGCAGCTCTCATCCCGGTTTCCTTTACGT

Sequence 1320

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
AAGCTGCTCCTTGAGGATAAGGGCTAACTCACAGGCAGTGACCAAGAGCCACTATAAAA
AGATCCTTAATGAGCAAAATATATCCCTATTATTTTCTACAAGTTGCTTTTTACTTGA
GTAGGAACCCCTTGATTGATTTTTGCGGACNCGTGGGTGGAANCTTGACCT

Sequence 1321

GGGCGAATTGGAGCTCCCCGCGGNGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGT
TTGTTTTTTCTTACGGCAACTCAAAGCAAAGAGCTGGAGGAGCCAGCCATTATNATTGC
TACTCTCATCGCTTAGCGCCCCAGGTGGGATGTGTTTCCAAAACACATTTTGTATTTA
TAAGGAAATGTAGTTAGGATTAATTTATTGTCCTAATTAGAAGTACATTTTGGTTAAA
TCCTCAATTTTCAAAAAAAAAAAAAAAAAAAGTGGCGCCGGCCGCCCGGGCAGGTACA
ATTTAATTTTCTGCTTGCCCAAGAAACAAAGCTTNTGTGAACCATGGAAGAAGATGAA
AATGAGACTGGCAAAGAACAATGCTGAATCTGAAGAAGATTTGGCAAATAATCTGCAT
ACTTTTAATTGGGAATAAGATGGAATAATGAATGCTAAATCAAATTTTTTA

Sequence 1322

CCGCGGTGGCGGCCGAGGTACAAGCTTCGACCCACGCGTCCGCTCACTTCATCCTCCCAG
CAACCTATTATGATCCATTGCCACACCAACTTGCTGATGAGGAAAGTGGGGCTTAAGGAA
ATTAAAGAGCTGTTGTGGGACTTCCAAAGCAGAAGACAGTAGGCTTTCAGAAATTTGATA
AAAATAGCACTTTGCATTTCTTGAATCTTGAGCTAAATGGAAATTAATACTAAACATTCT
CCTGTTGTTAAATAGAGAATAAGGATTAACAGTAAAAGAAAAGAAAGAAAAGGAAA
TGTGCTTCCACAGATTTAGAAACATAAGTAACAATCTAAGTTAAGGCTTTGGCACCTGCC
CGGGCGGCCGGCCGCCCGGGCAGGTTCAAAGACTACCAAAGTATGTATTTGATTTTCACA
TGCAAACAACCTTAAA

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Sequence 1323

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTC
CGCAGAAACCTTGCCATCATTCTTACTGCTGGTTTGCATCTCATTTATGGTGNNTCTGGG
ATTTCTTCTCATGAACAGAAAGATTCAGTGGCTGTTATATGCCTTGTCAATTTAATGTAT
TGCCCTATCCTCTTTTTGATCAAAGATAGAGACTAAGACTGGGAATTATGACAGAAAAAG
TCATATTTTTCTTTAAATGATTTTGAAATGTTAAATAGGCCAATATGAGTCAAAGTGCA
AATTTTTTGGTGACCTGCCCGGGGCGGCCGCGGCCGCGGCCGAGGTACTAAGCATTTCAGT
TCCAGGAGAATAAAAGAAATTCCTATTTGAAATGAATTCCTCATTTGGAGGAAAAAAGC
ATGCATTCTAGCACAACAAGATGAAATTATGGAATCAAAAGTGGCTCCTTCCCATGTGCA
GTCCCTGTCCCCCGCCGCGCAGTCTCCACACCCAAACTGTTTCTGATTGGCTTTTAGCTT
TTTGGTGGTTTTTTTTTTTT

Sequence 1324

CCGCGGTGGCGGCCGCGGCCGAGGTGCCTAATATATTTACTCTCTGGTCCTTTACAGGA
AAAGTTTGCCAACCTCTGGCTTAGATGATCACCTGAGGCCAAGGAGCCTCGCCCTTGAGC
ACAAGACTATGTAGTCAGTAAAGCACAAACAAAATTGGGGCTTTCCCTAGCAAGGTTGGA
AAGGCGGAGAAGAAATGGATTTGGATAGGTAGTCAACAATGTCTGTTTTATGTTACCACA
CATTTTCTCGAGAAATTTCAATCAGCTCTCTGAGAACAGATTTCATCTTTAAATGAATGTT
CATAGGTAACAGCAACTCATGCATCAATGTTGCAAAGTGAGCTCATTTTCACATTGCTTC
AGGTTAGGCAGAAGGTTTGGTAAAGGGATTAACGTAATTGTTTCCTTGNTGTTTACAAAA
AGAAGTCCCAGTTGGCATGCCACATAAAATCTTCTGNATCTCACTCTTGGTTACATTTC

Sequence 1325

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGTCCGCAGAGGCCC
AGGCTCCCAAACCGACAAAGTGAAAAGAGACCAGAGAGGCCAAGCATATTGACTGGTGCT
GTTCAGGGCCTGCTCTTTTCCACTCACCATTGTTTTGCTGCTTGTACGAGGAGAGTTG
TTCCTGTATGTGGCTGCTCTCAGATCTTCCAAAGCAAGCCAGTCATTTGAAGAGGTTTTC
TTTTCATGCTGGAGGGCAGGCTAAGATCAATGAGTGGAAGAGAGAAAGGCTGTTTTAGCT
CAAGTTAAAGGAACACCTTCTAGCCATCAAAGCCGCCCAACAGAGGCAAGGGCCACCACA
CATGAGAGAGCGCTCTNTCCTTAA

Sequence 1326

GCGAATTGGAGCTCNCCGCGGTGGCGGNCGCCCGGGCAGGTACCAAAATAATTACCAACA
NTACATTATGTACACCATTACAGGAGGGTAACACAAACCTTGACAGGTAGTAACTTTTC
ACCCACATNACTGAACGCTTAACACTCCTGGCTGTTAATTGTCAGTTCAGTGTTTAAT
CTGACGCGGCTTATGCGGAGGAGAATGTTTTCATGTTACTTATACTAACATTAGTTCTT
CTATAGGGGTATAGCGGACGCGTGGGTGGAAGCTTGACCT

Sequence 1327

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCTGTAGCCTATGACTTG
AGTCTCTTGAACCTCTAGGAAGAGGCAAACTACAACTACTAGGATTCTGATTTAGATA
TAGGCATTCCAGAATCTTCTTTACGAGTTCACCTGCTAGTATAATCTCCACAACCTGA
ATGGCCTTGGTTGTTCTGTAATTGCTGCCAAATCATCACAAGCTGTACCTGCCCGGGCG
GCCGGCCGCGCCGGGCAGGTCAAGCTTCGACCCACGCGTCCGGATGGGAATTCAGGTATGA
AAGAAAACAGGCAAGGAGGCACTGAGGGAGAAAGACACAGACTTTATCGCTCTGTGGCTC
ATTGTTACTGGAATATTCTAAAACCTCTGTTTACATGCTATTATGACTTATAAAGCAGCA
ACAGCTGAGGCGCACCAGGACACAGCTTCCATTTCTTTAACGT

Sequence 1328

AGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGA
AAAATGGGAGACAATTTACATGGACTTTGGAAAATATTTTTTCTTTGCATTCATCTC
TCAAACCTAGTTTTATCTTTGACCAACCGAACATGACCAAAAACCAAAAGTGCAATTCAA
CCTTACCAAAAAAAAAAAAAAAAAAAGACCTGCCCGGGCGGCCGCGCCCGGGCAGGTA
CAAGCTCGACCCACGCGTCCGAAATAATAAGCTAGAAGTAATTTTTCTTTTGTCTA
TTTTCCAAATTGACTCGATATTGATGGCTACTTTTGTAAGTTTTATTTAAGTTTAAAGG
GAATATTTATTGATCACCTNTATGTGCTCAGTACCT

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Sequence 1329

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCTTCGACCCACGCGTCCGC
TTGGGGATTTTCGAGGAAGGGTTCATAAGGGAGATTTTAGCTGAGAAATACCATTTGCACA
GTCAATCACTTCTGACCAAGTTATCAGAAAAAGGAGAAAAGAATGTCTCCCCACTAAATG
TTCTAGGGTGGTGAGAAATCTAGGGTGGTTATCTAAATCAACAATATTTAGATATTCCAA
TATCTAAATATTGTTGGAATACTCTCCTGAAGTGTTCAATTGAAGTCTAAGAGAGACAGC
TTGTGTATCAGTGGCAGGGTTAAGGTTCAATTTTTATTCCCATATTAATCCTTTAATAT
TTAGACAAATTTCTTCTGAGTTTAAGGATAAAATGGGATGGGTTCTGCCTGGGCCTGGC
CCTCATGGGGACATCAAAGGGCAATGTTGCAAAAAAAAAAACC

Sequence 1330

AGGTCAAGCTTCGACCCACGCGTCCGTGAACCTTTTATCAAGGCTTTTGCTCTTTAGACT
TGAGTTTATCTTTATAATTAAGGAGAATGGTTTTTAAATTTAGTTCCTCTGACACCCCA
AAATTATCAAAATAAATTATGTTGTAGTGAATCTGTGTTTGAAGTCATTGATAGGACT
TATATGAGTCAAAATTTATGGATTATAAAGTAAAGTCAACAATCTTCTTTGCTGCTTT
ATACAAGAAGCAACTTTATTAATTAGACCTAAAGTCAACAATCTTCTTTGCTGCTTT
TTAAAAATTACCTATTACCTTTAAAGATCCCAAATTTAGAAGAGGAATTAATAAAG
TTAATGCAATAAAACACTTCCACAATATTCTATTACTTCAACCTCTAATCAATGAAA

Sequence 1331

AGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTAAAATTTAAAGTATAATA
ATAATAAATTTTTGTTTTAAAAAAGAGTGTTGTCTTTGTCTTGTATTTCTGCAGTTTG
CATGTGATATTCTTAGGTATAGATTTTTTTAGTATTTGTCTGTATATTGTTATTCGAG
CTTCTGGGATCTGTGTTTTGGTGTCTATCATTAACCTTTGGAATATTCTCAGTCATTACTG
CTTCAAACATTCAATTCTGTTGCTTTTTCTCTTCTGGTATTATCATTACACATATATCACA
CCTTTTGTAATTCTCCACAGTTCATAGATATTCTGTNGTATTTATTTATTTTTCTCTT
TGCCTTTTAGTTTTAGAGATTTCTATTGACATCACTTAAAGATGATTGATGAGTTGATGA
GAATTGAGAGAATTGATGAGAATTGTTGATGAGAATTATT

Sequence 1332

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTTTCTGCATTTCT
TAATGAAGAAATAGGCTGGTCTCAATTTTGAGAAGTTGTATCATCATAGGTACATACCT
AACATTCTGTTTGTCAAGAGCAAAAAACCCCTTGGGTTCTCTGGATCTCACACAGCCCA
CAAACCTTCAGAATGTGGTTCCTTCCCGCAGGCTTTGTCACTTAAGATCCAAGAACA
ATCAGCCTGGCTTTAACATGGGGTAGATGGCAAGAAGGATAATGCGGACGCGTGGGTCGA
AACTTGACCT

Sequence 1333

CCGCGGTGGCGGCCGAGGTAGCGGTGCACTTTTTTTTTTTTTTTTTTAAATAGAGA
TGAGGTTTTGCTATGTTGCCAGGCTGGNCTNCTGGACTCAAGCAATCTCCCACTTCAGG
CTACCAAAGTGCTGGGATTTACAGGCATGAGCCACCTCTCCAGTCTCAGTTATTTT
AATAAATGAGACTGAACGTCTTATAAGGCTCACTCCCTTGTCTACTACATTTGCT
CTGTTTAAGTATCTCTTTAAATTCTTCAGTTAAGCGGACGCGTGGGTGGAAGACCTGCC
GGCGGCCGCCGCCGCCGCGGAGGTATTAACAGGTGCTTGCAGTTTGTGACTTTTTTGA
AAAATCAAGTTGTAACTTTTATTACAAATTAATAAATGAAGTTCTTAAAAATCTCACTT
GACCAGATATGAAACAATTTAAAAACCTTTAAGGCGTATTGAGAAAAACCAGGCTTTTT
AAA

Sequence 1334

ACTTAGGGCGAATTGGAGCTCCCCGCGGNGGCGGCCGCTCACCTGCCCGGGCGGCGGCTC
GAGGCCGCTCACCTGCCCGGGCGGCCGCCGCACTTTTTTTTTTTTTTTTTNNCAAAA
CAAAACATGCTTAGCATGCACACTTTTACCACTTTTTTCGAGTGGAAAGTTTATTGGCAA
TATTAATTTACCCCTANATAGGATATGAGAATGTTTGATAAATCACAAATTTATAGTAT
ATTAATGCCATGTGAGAATTTTGTTCCTCAAGTAAGAGCTCACATGGAAGTTGGTCATTA
AACCTTAAAGAAACCTTTCTCACATATCTATAGGCCTCAAATTTGAAATAATCTATAAATG
AATTTGTAGATTTCTTTTATGTTAATTCCTGAGTATACAGGGCAAAAGCTTATATCCTT

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TATATAAACTTCTGCTTTGGTCTAAACTGATATATCTTCACGTTGAGGTTTCATCTGAA
ATGCNCCACCGTTTGCTGACTTGCTTCAATATGAATTTGGATGGCTATAAAATTGACCTC
GGCCGCTCTAGAACTAGTGGGATCCCC

Sequence 1335

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCGGCCGCTCGAGGCCG
CACTTTTTTTTTTTTTTTTTTTGGTAAACAGGCGGGGTAAAGATTTGCCGAGTTCCTTT
ACTTTTTTAACCTTTCCTTATGAGCATGCCTGTGTTGGGTTGACAGTGAGGGTAATAAT
GACTTGTTGGTTGATTGTAGATATTGGCGGACGCGTGGGTGGAATCTTGACCTGCCCCG
GCGGCCCATAGTTTGTAACCACTGGTGTAAACCTTAGTTATATATGATCTGCATTTTC
TTGAACTGATCATTGAAAACCTATAAACCTAACAGAAAAGCCACATAATATTTAGTGCA
TTATGCAATAATCACATTGCCTTTGTGTTAATAGTCAAATACTTACCTTTGGAGAATACT
TACCTTTGGAGGGAATGTATAAAATTTCTCAGGCAGAGTCCTGGATATAGGAAAAAGTAA
TTTATGAAGTAACTTCAGTTGCTTAATCAAATAATGATAGTCTAACAACTGAGCAAGG
ATCCTCATCTNGAGAAGTGCTTAAAT

Sequence 1336

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGAAGATCCTGCGGAAGGAA
TATGTTTTTGTGACTCCAAAGTAAGTGACAGCAAACCTTCTAAATGGGCTGTGAGGTAG
GGAGGGGACACAAGCGTTTTGAGGCTCGCTGNGTGCCAGGGAGTGTATCATTAGCTCACT
CAATTTCCAGAACACCCATTTACACCTGGGAAAGGTGAACCTTAGAGAAGTTGAGGATC
ATGTTCCAGGTTGGCCTGGATTTGAGCCATCACTGTCTCAGGAGTAGGGAGGCTTCCAC
TTTGCCAGCTGCCTCCAGCCTCGAGGCCACATCCTTTATGACCCACATCTAACTCAGC
CCCACACCTGGGGGAAAGGCTTTCAGCTTCTCTGGGCTGGACTTGGGAAATCTTTGGGAC
ACTCCTGACCTGCCCGGGCGGC

Sequence 1337

CCGCGGTGGCGGCCGCCCGGGCAGGTGTCCCATGAGGGCCAGGCCAGGCAGAACCCAT
CCCATTTATCCTTAAACTCAGAAGGAAATNNGTCTAAATATTAAGGATTAATATGGGA
ATAAAAAATGAACCTTAAACCTGCCACTGATACACAAGCTGTCTCTTAGAGTTCAAT
GAACACTTCAGGAGAGTATTTCCAACAATATTTAGATATTGGAATATCTAAATATTGTTG
ATTTAGATAACCACCTAGATTTCTCACCACCCTAGAACATTTAGNNGGGAGACATTCTT
TTCTCCTTTTCTGATAACTTGGTCAGAAGTGATTGACTGTGCAAATGGTATTTCTCAGC
TAAATCTCCCTTATGAACCTTCTCGAAATCCCAAGGT

Sequence 1338

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCTTCGACCCACGCGTCCGCTT
GGGGATTTGAGGAAGGGTTCATAAGGGAGATTTTAGCTGAGAAATACCATTTGCACAGT
CAATCACTTCTGACCAAGTTATCAGAAAAAGGAGAAAAGAATGTCTCCCCACTAAATGTT
CTAGGGTGGTGAGAAATCTAGGGTGGTTATCTAAATCAACAATATTTAGATATTTCAATA
TCTAAATATTGTTGAAATACTCTCCTGAAGTGTTTATTGAACCTTAAGAGAGACAGCTT
GTGTATCAGTGGCAGGGTTAAGGTTTATTTTATTTCCCATATTAATCCTTTAATATTT
AGACAAATTTCTTCTGAGTTTAAGGATAAAATGGGATGGGTTCTGCCTGGGCCTGGCCC
TCATGGGGACATCAAAGGGCAATGTTGCAAAAAAAAAAACCTGCCCGGGCGGC

Sequence 1339

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGATTCTCTGATTAGATTTTAACTT
TTTTGATGAAATATTGAGTCTTAACCTACTTTAAGATGCCATAATACTGAATACAGNGCTA
AGCAAAATAAATATTGACTAGTTCTCATTTCTATCTTTCAAATATTTCTAATGCTCCTCT
TTTATAGCATGGGCTCAGGTATCAGATGGCGTAGGTCAAGATCTTGGCTCTACTGTTTAC
TTACGGGAAATACTTTATGTTGCTAAATCTCAGTTTTCTTCTGTAAGACGGGATTAA
AGTACCT

Sequence 1340

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCGAGGTCTACTCAAGTAGTCT
TTACCCCTACTCAAGTAGGGGGTAAAGTGTAAGAACAGGAGTTTGATNTGTGTTNGCTG
ATTGTGAACCATCAATTGAGATAACTCACTACCTCAGGCCAGCCAGTTACATACTTTTG

TABLE 1
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AAAAGCCAAGAGTGAAGCAGGGTTGTTTTTCATCCAATTCTTGGTCTTTTTGTTAAAGGC
AGCAATAAGATAGGGTGGTTTCGGGCAATCACTTAGCTAATTGGCTCTCTATAGTCATAC
CTGGATAATATTTGTAGTCATACCTGGGATAATATTTAAAGGGAAGAACTAAACATAGT
CCTTAAGTAGGAACCAACTACAAT

Sequence 1341

CCGCGGTGGCGGCCGAGGTCCTAGCTTGAGTCGACCCACGCGTCCGGCCGCTGTTTCGTAT
TTCTTATTCTACAACAAGGNGCAGCCTANAGGCCAAAACACATCCCATTGTCATTTTTTT
GTAAATAAAGTTGTATTGGAACATGGCCACTCTCATTTGTTTTCTATTATTTATGGCTGC
TTTCACTTACAACCTGAGTGGTTGCCACAGAACTGTATGGCCTGCAAAGTCTAAAATAT
TACTATGTAGCTTTTTCTTTCTTTTGGAGACAGTGTGCCACTCTATTGCCCAGGCTG
GAGTGCAGGTGGTGTATCATGGCTCATTGCAGCCTCAAACCTCTGGGCTCAAGCAATCCT
CCCGCCTCGGTCTCCCAAGTAGTTGGGACTACAGGCATGAGCCACCATACCCGGCTAATT
TTTTTAAAGTTTTTGGTAGAAATGGAGTTTTTAAATGTTGCCCAGGCTGGTCTTGAATC
CCTGGTCTTAAATGACCCTTTTCCCATCAG

Sequence 1342

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAGTTATTTATTGATTTAATCAT
TGTAATCTCCAATAGAGATTACAATAGAGATCTCCAACATGATTTTCATGCATTTAGAGGA
GAAATATTTCTGGTTAAGTGGAATAATTGTGCGGATGTGGCTTCTGGAAGACCTTCATTC
TAAAGCAGCGGACGCGTGGGTGGAACCTGCCCGGGCGGCCGCGCCGGCGGGCAGGTCTG
CAATCCAGCTAGGCATGGGAGGGAACAAGGAAAACATGGAACCCAAAGGGAAGTGCAGCG
AGAGCACAAAGATTCTAGGATACTGCGAGCAAATGGGGTGGAGGGGTGCTCTCCTGAGCT
ACAGAAGGAATGATCTGGTGGTTAAGATAAAACACAAGTCAAACCTATTTCGAGTTGTNCA
CAGTCAGCAATGGNGATCTTTTTGCTNGTCTTGCCCATTCCTGGA

Sequence 1343

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGCTTTAAAACCCATA
CCCCTCCAGGGTTCTTTTCTGTTGCTGGTGAAGTGCATTTTTAAAAGAGTNATTCATAC
CATCAAGATTTTTGACAAGAAAATTTAGAAAACTGTGGAAGAAAACCTGATTGCTCTTA
GTTCTAGCCATGTGTAATTGCTGACCACCTGAAATGGTCCAAACCTGAGATTTGCTAAAGC
ATAAAATACACACCATATTTCAAAGGTTTTTAAAAGAATGTAAACATTTCAATTAATTC
GGACGCGTGGGTGGAAGCTTGACCTGCCCGGGCGGCCGAGGTGGATGGACCCATCCATTC
AGGCAGGGGGTGTGGGGTGTCCCCTGTGCTTAGAAACCACCTAGCATCATAAGCTGCAAC
AGCACTTTATTGGATCTGAGTCTACAGTTCACATAGGGAGGTGAAGCCGTGGGAGAAGC
AGGGNGTAAAAAAGGGGGGGGACTTTACCCCTAAGGACAGGNTGCTTCC
AAACCTAACAAAAAC

Sequence 1344

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGTAATTTGTTGCACACTAT
GTAACAAAAACAACTGAAGATATGTTTAATAAATATTGACTTATTGGAAGTAAAAA
AAAAAAGTGGCGCCGGCCGCACTTTTTTTTTTTTTTTTGTGCTGGGGTTT
TTTTCTTTCTTTTTTTTTCAGCTACAGGAATTTAGCCAATTCANAGGAAATCTTCCCCA
TAATTATGGAACCTTTNTTACAGATTTTACCAAGTCTGGTCAACCCAATAAGAAAAAGACT
GAAATAACAATAACAACCTCAACAAATAAAAAACAGTTAAGCTAAATAAACAGATGATT
GCAGAAATTTATGTGATTACTGGGTACCTCGGCCGCTNTAGAACTAGTG

Sequence 1345

CCGCGGTGGCGGCCGCCCGGGCAGGTACCAAGTTTGAGTTGAAACGGTATGTGACTTCCC
CAGCTGCACCCTGGGCAGTGACTGCATGCATCACTGAGAGGTCTGTCTACAGCAGATAA
AACTCCACAGATCACTCCTCCTGTAATCCCTCTAAGTGCTCCAAGGCAGCAGAAAGGCC
AGTGCAATTGAGGCTGGAAGCAGGAGCAGAGACTCTGGGATATAGTGCAGAAAGTCTCTTC
CCCTGTAGTTGGGCTAATCTGGAAAACTCAAAACCTGGCCTGATTACCGAGGTTTCTT
TTATGGATATTTAGTATTTAGATAAAATTTTACAGTATTCTTGAAATGAACCCAATTAA
ACACATAGTTCTCAGTCTTGACCACACATTAAGAATCATCTGGTAGACTTCTGTAAACTA
CCAATGCCTGGCCA

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Sequence 1346

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTACCTGAAAATGCTTATTCTAGC
TTCACATTTGATTGTTTGGCTAAGAAGAAAATTATTTATTAGACTTAATTTTCCTCACGA
GTTTAAAGATTGCTTCAGATCTTAAACTTCTAATGAGGAAAGCTGAGAAGTCCAATGCCA
TTCTGATTCTTGCAACTTACAAGTAGTCTTTTTTTGTCTANACGCTTTCAGGACCTTCTT
TTTTCTCAGTCAGTGTATCCAAACCTTCACAGTGATATCTTTTGGGTACCT

Sequence 1347

CTCCCCGCGGGGGCGGCCCGCCCGGNAGGCNAAGCTTCGACCCACGCGTCCGCTTTAAAGG
GAATTCTNTGTAGAGTGGGAGGCGAACACGNCTGGNNCTTCCAACTCAGGAATTCTCGTG
GCTGGGCTGGGTCAGCGATGGCTTTGTCTCTTTATGTCTAAAGTGCCCTATGGCATGCTG
AAGGTTACCTAACCATTTCTTTAAAGGAGAATGACCCTCCATGGGAATGGCCAGCCTGCC
AACTGTGCAATTGAAGAAGACCCGATGGATCAACCCCATGTCTTCTTGGGGAGAAAGTG
CATAAACCCAGGGGTCCCTTTTTTTTTT

Sequence 1348

AGGTCAAGCTTCGACCCACGCGTCCGCAAAAATCAATCAAGGGTTCCTACTCAAGTAAAA
AGCAACTTGTAGGAAAATAATAGGGGATATATTTTGCTCATTAAAGGATCTTTTATAGTG
GCTCTTGGTGCACTGCCTGTGAGTTAGCCTTATCCTCAAGGAGCAGCTTAAAAAAAAAA
AAAAAAAAGT

Sequence 1349

GCGCGTATACGACTCCTATAGGGCGAATTGGGAGCTCCCCGCGGTGGGCGGCCCGAGGTA
CAAATATGTATCTGAAACACTTCTATTTGGCAATTTTATAACAAATCAAATTTTAAAAA
GAACAAAAGAGATTGCAGATTACTTCGCAGATACAGAATAAAGCAATTGATGAAGTGCTT
AAGCAAAAAGAAACAACAAAAAAGAAAACACACTGCTTTTCTTTTAAAAATAAAATCAC
ATTGCTATAGATCAAATGGATAATACCTTATTAACAACCATTCAGAATGTCTTATAG
TAGCAGTGCTTTTATTTGCACTTCACTTAATTTTATAAGACTCATTTTCATGTATATAGC
TCTTTACCCCATTTGTTAACGAATAAAGTCTCTCATAATTTTACACTTTTAAATTTTT
AAAGCAAATGAGAAATGATTTATGTATCGTGGAACCTTTCCCATTTTGAACCAAAGGT
TTAATTCATATTTTTGNCTAATATTTCTTTAAAAAAT

Sequence 1350

CCGCGGTGGCGGCCCGCCCGGGCAGGTACTATCTATAAAGGAGGTTTGATGTTTTCTTA
CTGTTTTTGTAATATTTTCAGCATTATCTTAAAAAGTAAGGACATTGGCCGGGTGCGGT
GGCTCATACCTGTAATCCAGCGCTTTGGGAGGCNGGTGGGTGGATCACCTGAGGCTAGA
TAGTTTTATCACTTGGCTGTTTACCACAAAAAAGTGGCGCCACCT

Sequence 1351

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGAGCAGGATTACCATGG
CAACAACACATCATCAGTAGGGTAAAACTAACCTGTCTCACGACGGTCTAAACCCAGTAG
AAACAAAGTGGGCCGCGCCCGGGCAGGTGCCGCACTTTTTTTTTTTTTTTTTTTAG
AATAGGATTGAATTTTATTAACAAACAAAAATAAATCTAAAAAGCTTCCTTCAGTTACAAA
TATGCACAAGAATTTCTGCATTACATCATTTGACATAAAATGTTCTGAATGACAGAAGTA
GAAGTAGAACTTACTACCATTTGAAGACAGGAGTTGAGCGCTGAAAACACACACATTTA
TAGAAAGAAACCAAAGTTTACAGGGAAGACCTGTGATCTCTGGCTACAGGAGCTGAAAT
TAGGAACATGAAAGAACTTGGAGAGAGAAGACATTCAATACTCTAAAATACTTCAGCAA
AAATAGTCAAACATNTGTNAACAACCTTGGNACAAAACCTTTATATGGTGGGGGGTGGCTAT
GCCGGAATAANTCTTNACTGGNTATTATTCACCTCAAAAAGGGGGNTTTAATGNTCACG
AATCCTTCCTTTAAAAATAAANAAGCNTGGNTTNTTTTCTGGNGTCAAGAGTAAAANG
TANTAGGGNNTACTCAGGGATGGTTTGAATTTTAAACGGGGCNTTCCACCCTTGGTGG
CTNGTGGCANTTTANCCCAAAACGGCNAANAACCGGCCCGNGGTCACTTGNAACCT
GGCGGNTTNAATANGGACCCCGGTGGGGGATTNANTNAGNTTGANCCGNNNCTTGGG
GGGGCCGGCCC

Sequence 1352

TABLE 1
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CGAGGTCAAGCTTCGACCCACGCGTCCGGTACTAGAGCCCTTGAAGGGCAGCACTTGGG
TTTAgTTGGCCTCTTCTGTTTTACCTAATTTCTCAATCCACCTATTCTTTTTCTCAC
TTTCTTAAATCCAGTAATTATCTTAGGANAAGCAGTTTTCTATGCATAGACAGTTCATT
TAGATTGGTAACATGGGCTAGGTAAAAAAAAAAAAAAAAAAGGTGCGACCTGCCCG
GGCGGCCGCTCGAGGCCGCCGGGCAGGTACTATGTCGATTGACAGAACATTGAGAAGA
TTCTCGGCCTTGCCCCTTACGAGCCGCCACCAAGCAGGCAGGTGGATTTCTTGGCCCAC
CACCTNCTTCTGGGAAGTTCTCTTGAAGTCAAGAACTCTTATTTCTATCATTCTTTCT
AGACACACACACATNAGACTGGCAACTGTTTTGTAGCAANAGCCATANGTAGCCTTACTA
CTTGGGCCCNCTTCTAGGTTTGAATTATTTCTAAGCCTTTTGGGNATGATTAGAGNGAAA
ATGGCNCCNGCAAACCTTGNAGGGGCTTTTGGNNCCANAATGATTTTTAATAAAAAAAGG
GGATTGAATAGNTAAANTCAAGGGAANGGTTTATGNAAAGGAAAAAAAAAAGCCTCCTTC
NTGGTTAATTTACAAAAGGTNTTTNTNGGGGGACCGNCTNTAAAGNACTNGGGNTTNC
CCCGCAAGGTGGGNGGTATTNACCNTTTNNGGNTTAAAAAAAAAANTTNGNNNGGT
NAACCCTGGAACNGGGGGGGTTNGNG

Sequence 1353

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGCAGGTCTTCGACCCACGC
GTCCCGGGGTTTCAAACCTGAATAACTCATTGTTGGGTCTGGATCTGTAAAAGGTTTTGT
CACTGATGGGCAATATGGAGAGAATGTAAAATATCTAACTTCAAACAGAAAAAGAAAC
AACTGGATGAAAGCTATAACAATAGTTCAGAAGATTGGCGTAGAGGATTTACCTACAGA
ACTTCAGGAGATTCTAAGAAGGCCTTCAGTGATCTTTTCATCAATATCATCAGGCCTTA
TCATTGTTTCACATTTGCTTCTCTTTACCATAGGGAATATAATAATTATTTACTGGTTAA
CTTCCTAGGGAGATTGCCTGCGGCTTATTTAAGATCCAAATTTTAAAGTAATAATTTCTG
TTGAAGCTGCTTGTGAGGTGGTTGGGTGGGCAGATAGAGTGAAGCCAGGGACACACACTA
AATGAGCCCGGGATGTAGGCAGGTTTTGATGTTTTGCTTGCTTTATCCCTAACATT

Sequence 1354

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGATTCTCTGATTAGATTTTAACTT
TTTTGATGAAATATTGAGTCTTAACTACTTTAAGATGCCATAATACTGAATACAGTGCTA
AGCAAAATAAATATTGACTAGTTCTCATTCTATCTTTCAAATATTTCTAATGCTCCTCT
TTAAGCATGGGCTCAGGTATCAGATGGCGTAGGTCAAGATCTTGGCTCTACTGTTTACTT
ACGGGAAATACTTTATGTTGCTAAATCTCAGTTTTCTCTCTGTAAGACGGGATTAAG
TACCT

Sequence 1355

AGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTCTTCGACCCACGCGTCCGGGGTTTCAA
ACTGAATAACTCATTGTTGGGTCTGGATCTGTAAAAGGTTTTGTCACTGATGGGCAATA
TGGAGAGAATGTAAAATATCTAACTTCAAACAGAAAAAGAAACAACCTGGAATGAAAAG
CTATAACAATAGTTCAGAAGATTGGCGTAGAGGATTTACCTACAGAACTTCAGGAGATT
CCTAAGAAGGCCTTCAGTGATCTTTTCATCAATATCATCAGGCCTTATCATTGTTTCACA
TTTGCTTCTCTTTACCATAGGGAATATAATAATTATTTACTGGTTAACTTCCTAGGGAGA
TTGCCTGCGGCTTATTTAAGATCCAAATTTTAAAGTAATAATTTCTGTTGAAGCTGCTTG
TGAGGTGGTTGGGTGGGCAGATAGAGTGAAGCCAGGGACACACACTAAATGAGCCCGGGA
TGTAGGCAGGTTTTGATGGTTTGCTTG

Sequence 1356

CGCCCGGGCAGGTACTATCTATAAAGGAGGTTTGATGTTTTCTACTGTTTTGTAAAT
ATTTGAGCATTATCTTTAAAAAGTAAGGACATTGGCCGGGTGCGGTGGCTCATACCTGTA
ATCCAGCGCTTTGGGAGGCNNGTGGGTGGATCACCTGAGGCTAGATAGTTTTATTCACT
TGGCTGTTTCAACAAAAAAAAAAAAAAAAAAGTGCGGCCACCT

Sequence 1357

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTGCGTCCCGAGTGTTTCCA
CTCTGTCCATAAAATGGGAGCTAATATTCTCCAACCTGTGTGCCTGACATGATGGTTAA
GGGATTAACAAACAATAGTTTGTAATTTATTCTGTGAGAGCAAACCTGCTGGTAAATAA
AAGGGCTAGTGACGAAAAATAAATTTTAAAAACCTAATAAAACAAGTTTGTAATTTATA

TABLE 1
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ATTGTATACAAATAAAAGATGTTACAAAAAAAAAAAAAAAAAAGGACCTGCCCGGGC
GGCCGGCCGCCCGGCGAGGTTTTATTTAACATTCAAACCTCATTAAAGACATGTGCAATAT
GGCAATTTTACTGGGGATTAAACCCTACCTAGGATTGCTTGCTGGGGCTTAGCAACAGGG
TCCAGTTCACACTTAGCACTAATTAATACTTTATTGAATAAATACAATACCAAACAAAA
TGCATTCAA

Sequence 1358

CCGCGGTGGCGGCCGAGGTCAAGTTTCGACCCACGCGTCCGCATTATCCTTCTTGCCATC
TACCCCATGTTAAAGCCAGGCTGATTTGTTCTTGATCTTAAGTGTGACAAAGCCTGCGG
GAAGGAACCACATTCTGAAGGTTTGTGGGCTGTGTGAGATCCAGAGAACCCAAGGGGGTT
TTTTGCTCTTGACAAACGAATGTTAGGTATGACCTATGATGATACAACTTCTGCAAAAT
TGAGGACCAGCCTATTTCTTCATTAGAAATGCAGGAAACCTGCCCG

Sequence 1359

CGCGGTGGCGGCCGAGGTCAACGCTTCGACCCACGCGTCCGGGACCTCAGAATATAAAAA
TATGGTTTTTTTTTCAGACTTACTAGTTTTTTTTTGATAATTCCTCTACGAATGTTGATTT
AACTTAGAAATATGTAAATTAATATTCAAAACCAAATTTTTTTAAAGAGGAAAAAAA
TATAAACCTGCCCGGGCGGCCGCGCACTTTTTTTTTTTTTTTTTTTNAACTTT
AATAGNGTNCGGAAGNTGAATAATTTATGAAGGAGAGGGGTCAGGGTTGATTCTG

Sequence 1360

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTGAGTCGACCCAC
NCGNCCGGAGATGTATACTGCCACTATAGGAACTATAAGAAAAAGTCAAATGGAAATNTN
ATAAATAAAAAACCACAGTCACTATAATGAGGAAATACTTTGATANGGNGTCAGTGAACCTC
AAAAATNANTCAATNGAACTACTCAAACCTAAACCTCAAAGAGAAAAAAAANGATGGGAG
ATAATTATTTTTAAGAATTGGTCATCAAAATGTAGCAACAAGTTCGCCTTATCCTATAT
CATTGAATTTTTCAAAAAATAAGCTCATTATACAATCTTTAAATATTTTGAATAGAACT
GTTTCATGTGTTATTNGTGAAAT

Sequence 1361

CCGGGCAGGTCTACTCAAGTAGTCTTTACCCCTACTCAAGTAGGGGGTAAAGTGTAGAA
CAAGGAGTTTGATCTGTGTTCAACTGATTGTGAACCATCAATTGAGATAACTCACTACCT
TCAGGCCAGCCAGTTACATACTTTGAAAAGCCAAGAGTGAAGCAGGGTTGTTTTTCATC
CAATTCTTGGTCTTTTTGTTAAAGGCAGCAATAAGATAGGGTGGTTTCGGGCAATCACTT
AGCTAATTGGCTCTCTATAGTCATACCTGGATAATATTTGTAGTCATACCTGGATAATAT
TTAAAGGAAGAACTAAACATAGTCCTTAAGTAGGAACAACCTACAATTTTAAC

Sequence 1362

ACTGTTTTTTTTTATTTGTTGAAGTTGTTGTTGTTATTTCACTCTTTTTCTTATTGGGT
GACCAGACTTGGTAAATCTGTAAGAAAGTTCCATAATTATGGGGAAGATTTCTCTGAA
TTGGCTAAATTCCTGTAGCTGAAAAAAAAAAAAAAAAACCTGCCCGGGCGGCCGCGCCG
GGGCAGGTTACAAGCTTCGACCCACGCGTCCGGGAAATTTAATTAAAAATAGGTGAACA
TTTTAAATGACCTAATACATATTTAGTCCACATTGAACTTTGGCATTGNCATTGCCA
TTAAATTTTTGATGGCATTAAATTTTATGCCATTAAAAATTTTGATCAGTAGGTAG
CA

Sequence 1363

CCGCGGTGGCGGCCGAGGTACCAACGTTGTCCCCTGAAAGGTGTTGTGTCCCTCACCAGA
CTGGGAGCACCTCAAGGGCAGAACCCATGTCATGTTCTTTTTGTATTTCCAGACCTGAA
ACTGCCAGTAAATAAACCTAAAGTAGAAAGAAAAAAAAAAAAAAAAAAGTGCGGCCG
CCGCACTTTTTTTTTTTTTTTTTTTNGGAAACCAACATGCTTTATTTCATTTTTTTC
ACAATTTATTTAAACATCTCANATATACAAATAGGTACCT

Sequence 1364

CCGGGCAGGTGAGGAGTGTCCCAAAGATTTCCAAGTCCAGCCCAGAGAAGCTGAAAGCC
TTTCCCCCAGGTGTGGGGCTGAGTTAGATGTGGGTCATAAAGGATGTGGCCTCGAGGCTG
GGAGGCAGCTGGGCAAAGTGGAAGCCTCCCTACTCCTGAGACAGTGATGGCTCAAATCC
AGGCCAACCTGGAACATGATCCTCAACTTCTCTAAGTTCACCTTTCCAGGTGTGAAATG

TABLE 1
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GGTTGTTCTGGGAATTGAGTGAGCTAATGATACACTCCCTGGCACACAGCGAGCCTCAAA
ACGCTTGTGTCCCCTCCCTACCTCACAGCCCATTTTAGAAGTTTGCTGTCACTTACTTTG
GAGTCAGCAAAAACATATTCCTTCCGCAGGATCTTCCGACGCGTGGGTCTGAAGCTTGAC
CT

Sequence 1365

TACTATAGGGCGNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCC
GATTGATTAATACCTGTCACAGATACATTTTGGTTTACAAATCAATGAACAATGGAGGGA
ACTCTGTCCTTAATCTTGGTACGAGACAATGAACCCAGGTACTTACCCACAGACAACGAC
GCCGCTTNACCATGATGATGGACAACAGGCAACTTTTTTTTTTGGAGTTTCAGCTTGCTTC
CAACAGGGACGGTGAGTGTGAGGTTTATTCCCATTCTAAGACGATAGAAGTTTTTCAGCC
TAAGCCGATTCTAGGTAAGCAGCTGGATTGCAGTTTTTGTCTTGGAATTNTCCTTAA
TTGNNTNANNCGTTAANATTAACTAGCTGGNTNTTAAATTTTTNTCNTTTACCCAT
TANAGGTNCCCCCANAAATTNAAATNAAATTTNTGCAATTAATTTTTGAACCTTGCCCC
GGGGTGGGCCCTGGCCCCCCTNGACAANGNTTTTTTTTTTTTTTTTTTTT

Sequence 1366

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGCAGGTCTTGAGTCG
ACCCACGCGTCCGGAGCTGCTCAATAGTGAGAATCAGGTGATATAATGCATGTGGAAAAA
GAATGTGAAAAATCTAACACTTTAGATTGTATACAGTGTTTTTTAAAAAGACACAAAAA
ACTGTCAACATGAGAAACATAAGCAAAGTTTTACTCAAGACAAACATCCACGAGTCACAA
CTTCAGTTATTTCCAGTCTTCAAATAACAGAAGGGCAAAGCAAAGGTAAACATGCAAA

Sequence 1367

GACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGATTCTCTGATTAGATTTT
AAACTTTTTTGATGAAATATTGAGTCTTAATACTTTAAGATGCCATAATACTGAATACA
GTGCTAAGCAAAATAAATATTGACTAGTTCTCATTTCTATCTTCAAATATTTCTAATGC
TCCTCTTTTATAGCATGGGCTCAGGCATCAGATGGCGTAGGTCAAGATCTTGCTCTACT
GTTTACTTACGGGAAATACTTTTATGTTGCTAAATCTCAGTTTTCTCTCTGTAAGACGG
GATTAAAGTACCT

Sequence 1368

CCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAGAACATCTTGATTTACAAGGGACAAAA
TGATGCAAATTATGCTGTCCAACCTACTGGTGAAGTGGATCAGAATGGTCCAAGGACT
GTTAAACAGAGGAAGTATTTACATTCTGAAAACCTTGCGGACGCGTGGGTCTGAAGCTTGA
CACCTCGGCCGAGGTACCTTCTGTCAAAAGACCCAAGCTTCTCCAGCTTCCAGGATAG
CAGTCAGCCAGCTGGAAGCCGAAGGGATCAGGGAGCCAAAGGTGACTGGGAAGCTAAA
GCAACAATCACCTAAATTACAGTCTTCAAGAAAGTTGCTTTCTCAGGCAGAATGCCCC
TCCCAAGGGCAGACACACAAACACCGGCTGTGTTATNCCCATCCAAGACTCAGGCCAC
CCTGAAACCTAAGGACCATCATCAGCCCCCTTTGGAANGGGCC

Sequence 1369

CCGGGCAGGTCTGAGCGGCCGCCCGGGCAGGTTTCTGCAATTTCTAATGAAGAAATAGGCT
GGTCTCTCAATTTTGCAGAAGTTGTATCATCATAGGTCATACCTAACATTCGTTTGTCAAG
AGCAAAAAAACCCTTGGGTTCTCTGGATCTCACACAGCCCACAAACCTTCAAGATGTG
GTTCTTCCCGCAGGCTTTGTCACTTAAGATCCAAGAACAAATCAGCCTGGCTTTAAC
ATGGGGTAGATGGCAAGAAGGATAATGCGGACGCGTGGGTCTGAACTTGACCTN

Sequence 1370

CCGCGGTGGCGGCCGCCCGGGCAGGTGTGACCCACGCGTCCGACGACTCACTATAGGGA
TCTAGATCACGAGCGGCCGCCGCCCGGGCAGGTACAGAGATTTAAATGAAATCTTCGAA
AGAATAAATTTGCTTTTCACTCCACTGTATTTCAAATTT

Sequence 1371

CCGCGGTGGCGGCCGAGGTACTTCAAAGTTATTGCACATACACTTGTTTACTTTGTATGT
TTTGCAGGATTAACCTTTGTATAATCTTTTACAAAATTTTTTTTTTCACTATGCAAGCTT
GCAAGATGAAAATAAACCTGTTTGCCTGATAAAAAAAAAAAAAAAAAAAGTGCGG
CCGGCCGCCCGGGCAGGTCTTGAGTCGACCCACGCGTCCGCCGGAGAnnnnnnnnnnnnn

TABLE 1
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[illegible]

Sequence 1373

CCGCGGTGGCGGCCCGCCGGGCAGGTTATAGACAATATGCTCCTTAAGGTCCCTTTAGT
CCCGTTCTATGGATCTGTGTAGTTTCGCTTCTTTTTCAATATGCTCAGAATTAGGACAC
CAATGTTAATGGAAGATAAGGAACTATACCACCTATCCCTTATAGAAGATTTGTGCACT
AACTAATATGAGCCCTGGAAGATCAAGCCAGTAGAAGATAGAAGATCTATCCCTGCTTTA
TACTTTGGATCATTTATTTGTGAAGATCACAACTTTCAAAGTTTTATTATTTCTTAGGTC
TTCATGGAAGTTCGGGGAAATTAAGTGGATCTACTTCTAGTCTAAATAAGCTCAGTGTTT
AGAGTTCAGGGAATCGCAGATCTCAGTCATCTCCCTGTTGGATATGG

Sequence 1374

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCG
TCCGAAGAAGTGCTATGTGGCGAGAAAAAAGTTTTAATGTATTGGAGAAGTTTTAAAA
AACCCAGAAAAATGCTTTTTTTTTTTTTTTGAACATAAACTCAAGATTTTATTGTCTTC
ATAATAAAAGATGACACTTAGAACTGGATCACTTGGCCCTTCTCTTCTTATCTCCTCCCA
GTTCAAAATGCTTGCATNTTTAATAGCCAGCATTNTTTAANATCTGCAGGTNGGGCTT
AAACNCCNCTTAAAGCCTTTAAACACAAATTTTTTTTTTGGNGGNTTTAAGCCCTTTT
TCCCGGAAAAAANTCGGNTTNAATTTTGGNCCNANAAAAANNACCCCTTTTGTTTTTTT
NNNAANAAAAACCNCTTTTTTNNNTNNGGGGGGAACCNCTGCCGGGGGGGGGGNCGTT
TTTAAAAAAGGGGGNNCCCCCGGGCNGNGGGGGATTTTTTTNTAAANNTTTTT
TTNNNCCCCCCCCC

Sequence 1375

CCGCGGTGGCGGCCGAGGTACTTCAAAGTTATTGCACATACACTTGTCTTACTTTGTATGT
TTTGCAGGATTAACCTTTGTATAATCTTTTTACAAAATTTTTTTTTTTCAGTATGCAAGCTT
GCAAGATGAAAATAAACCTGTTGCCTGATTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
GTGCGGCCTCGAGCGGCCGCCCGGCAGGTACTCTATAAGAGGTGTGGGTGCTTGTTTG
GTCAGGATGTTAGAAAGTGCTGATAAGTNNCATGATCAGTGTATNCCAAAAGGTTTTTAG
GAAGTATGGCAAAANTGTTGTATTGGCTTTATGGGGACATGATNNTAGTCNNCTTCCT
TTTTAAANANGNNTTATNTTGTTCNANTGGNTTAANTGGTTTTTAAAAA

Sequence 1376

TAAGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGAC
CCACGCGTCCGGCCACATTTTCAATTTAGCCATTTTCTCTTATTCACCTTTTTCTGCTA
ATTACTCTGTAATTCCACTAAGAAAAGTCAATAGATAATTCCAATAATGACTTCACTCCT
GAGAATTTTATTAGCTGCTAACGCTTGTCTCATCATAAGCACTCATATGTTCAATTGAGTA
AATATTTATTGAGTATTTGCTATGGTCCAGGCACTGTGCTAAGTATTGAGGATAAAATGG
TGATTGAAACATTTTCCCTTCTTGATTTTAACATCTACAAAATAAAA

Sequence 1377

CCGCGGTGGCGGCCCGGGCAGGTAATCACACAACACTTTCTTTTCCAAGTCTGCAA

TABLE 1
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AGTGCATCTACAATATGCTATTACAGATCCACTTTTAAAAGGTTTCCTGTGACATTACAG
CAAGCCTCTTTTTCAAACAGAGGAATAATCCCAAATTCCTCCTCAAATAAACTCCATTC
CAGTAAATGGTAAATACATAAAAAATTACAGTAAGCCAGACACTTAAAAGGACAGCCAAG
AAGTCTTCCAACAGTTTATTAGAAAAGTGTAGACATTTAAAAAATCCCCACTGTCATG
AACATAAATTGAGGTTTTAGCCCGGGTATAAGCTGAATCAAAAAAGGAAATAAAAAAT
CCAATAGTGTATTAACATTTTCACTCATTTGCCATACTGACAGTGCAAATCAAATCTG
GACTAA

Sequence 1378

CCACTGGATTGACTCAGAGAGGACCCCCAGAGGGTGTCTCCATCTTCCCTATTTATTTT
CAGCCCTTGAGGGCTTCATTGTAGATCAAAGCCAAGGCCCCAGGAAGGNGACATACTCC
TGGAAGTTCACCTCCTGGTCTTGTCCGGTCCAAGTCTTCCATCAGCCTTGCAATTTCA
GCATCCTGCAGCTTCNAGCCAATGGTGAGCTCCTTCTGGATCAGCTCCTTCAGCTCCTTC
TTGCTCAGGGTGTGCTTGTCAACCTCCCTGCCGGAGATACCTGCCCCG

Sequence 1379

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCAGGGATGGGAGG
CACAAAGTTGTATTGGGCAAAGTTTATTTTCTATGTCAGCCTGTCAGTCCACTGCCCAT
TTTGCAAGACTTTTTTTTAGCCTTGACAAAATGTCTCAGTTAAGTATAAAAGTTTTTCCA
CTACTTAGTCCAAAAAACTATTAATCTTAATGAAATAGCCACTCTCAAAAAAA
AAAAAAAGTGCGGCCGCGGCCGCGGCCGAGGTCTTCGACCCACGCGTCCGTCTTTTTTC
TTCCCAAACATAGACTTGCAAGACATGGCCTGTATGAGAAGAAAAGACCTNAAGAAAGC
AACGAAAGGAACGCAAGAACAGAATGAAGAAAGTCAGGGGGA

Sequence 1380

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATAGCACATTACAGTCAAA
TCCCTTCTCGCCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCTCC
GTGAAATCAATATCCCGCACAAAGAGTGCTTAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAGTGCGGCCTNGAGCGGCCGCGGCCGAGGTACATNTATTTTGGATTGTATATTGNG
TTTGTGATTTACGCTTTGATTCATAGTAACCTNTTATGGAATTGATTTGCATTGAACAC
AAACTGTAAATAAAAAGAA

Sequence 1381

CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAATCTGTCAA
ATATACTATGAAATGCATAGTCTCCACTTAAATGCTGAATGACACACACGTTTTGCAAG
CATTACTGCTTCCACAAAACTGCTGAATAGGAGTCCGTCCCTGCCAAGATCAGTGTT
TAAGAGATACTTTATGATGCTGATAAGTATTATTGGTGGTGGTGGTGTTCAGAAAGTTTG
TCACTCATGCAGATGTCTGAAATCTTGTCCGAATCCATGGAACATAGGGTGGAGGCCAG
CTCCCCCTTTTTTAGATGATCAGATAGTTCTGAGCAGAGATGTGGTCTCACCCTGCAG
TTCCTGCAGGAGCTGCTGCTGCTGGGATGGCTGCTGG

Sequence 1382

CCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCG
TCCGATTTTTTAAAGTATTTTCTAGTCTTTTCTCTCTGTGGAATGGTGAAAGAGAGA
TGCCGTGTTTTGAAAGTAAGATGATGAAATGAATTTTAAATCAAGAAACATTACAGAAAC
ATAGGAATTAACCTTAGAGAAATGATCTAATTTCCCTGTTACACAACTTTACACTTT
AATCTGATGATTGGATATTTTATTTTAGTGAACATCATCTTGTAGCTAACTTTAAAAA
ATGGATGTAGAATGATTAAAGGTTGGTATGATTTTTTTTAAATGTATCAGTTGAACCTA
GAATATTGAATTAATGCTGTCTCAGTATTTTAAAAGCAAAAAAGGAATGGAGGAAAT
TGCATCTTAGACCATTTTTATATGCAGTGTACCTGCCC

Sequence 1383

CGAGGGAGTCTATTGGAGCCCTTGGAACCTTCTGGATCAAATTGGACCTGAATTGAGATC
TATTTCTCAGCTTTCACCTATGTGAGCCAATAAATTCCTTTTTTGTGAAGGCAAAAAA
AAAAAAAAAAAAAAAAAAGT

Sequence 1384

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT

TABLE 1

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TTTTAACGTTTTAATTAATGGATTTATTTAAAAAGACTATAAAATCTGACATCAAGAGA
GATAAAAAAAAAAGACCCATAAGATTTAAATTGACAAATGTAAATGATTGGCTACAATG
TAAAAATACATTTNCCAGCCCCCAAACAAAACACAAGTATAGTAATTATAAAATTTTGG
ACCTGCCCG

Sequence 1385

AGGTCCTAGCTTGAGTCGACCCACGCGTCCGGCCGCTGTTCTGATTTCTTATTCTACAAC
AAGGGTCAGCCTACAGGCCAAAACACATCCCATTGTCATTTTTTGTAAATAAAGGTTGTA
TTNGGAACATGGCCACTCTCATTTGTTTTCTATTATTTATGGCTGCTTTCACTTACAACC
TGAGTGGTTGCCACAGAACTGTATGGCCTGCAAAGTCTAAAATATTTACTATGTAGCTT
TTCTTTTC

Sequence 1386

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTC
CGAGAAGAGTTTGCAAATGCAACAAAATATTTAATTACCGGTTGTTAAAACTGGTTTAGC
ACAATTTATATTTCCCTCTCTTGCCCTTCTTAATTTGCAATAAAAGGTATTGAGCCATT
TTTTAAATGACATTTTGA

Sequence 1387

CTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTT
TTTTTTTTTGCCCTTCAACAAAAAAGGAATTTATTGGCTCACATAAGTGAAAGCTGAGAAA
TAGATCTCAATTCAGGTCCAATTTGATCCANAAGTTCCAAGGGCTCCAATAGACTCCCT
NTCACCTGGTACCTGCCCG

Sequence 1388

TAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGG
GGAGGACCTAGGCAACGGCCTGAGACTCCGAGACTCTATGTTGAAGATGCCTGGACTAAC
CTACTGAAGATACCGTGGTTTTACCAACAGCCAGCACCATTAGGAAGATATGAATGAAGC
CATCTGAGACCAGCCATCTGGCAGCCAACTGCCAACTGACTGCAAATGCATGAATGATC
CCACTGACACCACGTAGAGCACAAATGAGTTGCCTCCACTGAGCCCAGCCCAAATTTGTTA
TCCTATAAAATCATAAAAACATAAACAGTTGTTTTAAGTCAAAAAAAAAAAAAAAAAAAAA
ATTAAGTGCAGCTGCCCGGNNCGGCCGCGCCGCGGCGGCGGAGGTACCCATTAATTTGCTCA
GATATAGCAGGCTTAATGGTTCTATATTTTCAAAGTTTTTAAGAATGGTT

Sequence 1389

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGGCGGCGGAGGTACAAATAAGCCACC
CCACTAGGAATATGTTAAAAAAATTCAAGAAAGATTTAAGGGAGATTACAGTGTTA
CTGTGACACCAGGAAAACCTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGG
GTTGGCCATNANAAGGAAGCCTGGACAGGTCCCTTGTTCAAAGGTATGACACAAGGTAA
CCCNAAAGCCAAGGCACCCAGACCAAGTTTNCATACATAGAAAGTTACAGCTGCTTTATA
CCCCCTTGCCCCGCCAACGTAGTTAAGAGAACAGCAGCATAAGCGGCTGGCAGAGGCAAG
GAAAGACCAGTAGAGAGAAAAAAGGCCATCTATACCAATTNTAAGTTAATTTAGACTAA
ACAAGGTCTTAATAGCAAAGGATAATTGAAATCCCAAACCTACAAGGTTTTTTAAC

Sequence 1390

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGGGTTTCATGAATGGAAACCTAAG
TAAACTAAGCTCATTAGTGACAGACTTGTCTTCTTCTTATTCTCCAGCAACTCCC
TCACCACCACGCCTCCCTGCCTACCATCCCCGGAAGGGTGCTTATTCTTTAACAAAGAGA
ATCTAAAAAAGAGTGGCGCCGCGCCGCGGCGGCGGAGGTGAGAAAACAGACCATATT
TACTCACATAATTCGCCTTCTACCTTTCACCTGCTTATGTAATAATTTAACTGTAGAG
GGGACATGGAGGTGACCGGAGTATTTAGTGGGTTCCTTGCTCCTGGGCTGGGCAGGTTCA
CAGGCCCCACAGGCCTTGGGCCCCAGCATC

Sequence 1391

CCGCGGTGGCGGCCGAGGTACTCTGAGGTACAGTCAAACCTATGCTTTAGAACCTTCATCT
TTTGCTTTCTGGGCTTTACTTTCCAAAATGGACTACAGGATAATGAGGCTTTTTTAA
AAAAAAAAAAAAAAAAAAAAAAAAAAGT

Sequence 1392

TABLE 1

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CCGCGGTGGCGGCCGCACCTGCCCCGGCGGCCGCTCGAGGCCGCACTTTTTTTTTTTTTT
TTTTTTTTTTTTAAAAATTCAAAAAATTAGTTTATTAGCTTAATATAATTAGGTCAATGG
AATCCTGTTTTGATCTCAATACTTCCCATTGCAATATATAAATGNGACAAATTCAGCT
GTTTTGTGGCATAAATAAGTGTCTAAGCTGGGCAGTTAGTCTACCC

Sequence 1393

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTTTTTTTTTTTTTTTTCT
TTTGAACAATTTTTCTGAAATTTATTTCTAAAAGTCAGAGACAAAACCTTTAGGAGTGAC
ACATTTATACTAAGCATACATGCGTGAGCAAAAAAATAAGCACAGAATACAAAAATGA
AATAGTAAAAATTTAATACAGTATTCTGAATACAAGTAGAATACCACTAGATAAGAATTG
TATTTACCTAAGAAATCTATGATAGNGNGGGNGGAGATAAACCAAGTTTAGGATAGCCACT
TCACTATTCACATTTTAATCAGTGCTGACCAGAAGCTAAAGCAA

Sequence 1394

ACTTAGGGCGATTGGAGCTCCCCGCGNGGCGGCCGNGGTACAAATAAGCCCACCCCACT
AGGAACATGTAAAAAAAATTCAAGAAAGAATTTAAGGGAGATTACAGTGTTACTGTG
ACACCAGGAAAACTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGGGTGG
CCATCAGAAGGAAGCCTGNACAGGTCCCTTGTTCAAAGGTATGACACANGGTAACCCGT
ANGCCAAGGCACCCAGACCAGTTTCCATACATAGAAAGNTACAGCTGCTTTTATACCCCC
TTGCCCCGCCAACGTAGTTAAGAGAACAGCAGCATAAGCGGCTGGCAGAGGCAAGGAAAG
ACCAGTNGAGAGAAAAAAAAGGCCATCTATACCAATTCTAAGTTAATTTAGACTAAACA
A

Sequence 1395

CCGGGCAGGTACAAAAGGGTTCCTCTATATGCCAACTAATCCAAATTTTACTTTTACT
GCAAAAAAACCTTTTTGGCATCAAACTCCATTGTTTCTCTGCACTCTGACACCATCATT
TCAAAGGGGCTCACATAAATGATCACTACTGCTCTCTCCCTAATTTTGAAGAGGAGTT
TTGAGAATAAAACAGTGCTTTTATTATTAGCCAACACAAAGTGTGAGAAAATCATTCTGT
AGAAATTAACATTTTAAGCTAACAGAAATTCAGTATACTTAAACATAATTATATTTAATG
AGTCATTATTTGGATCTAAACCGACGCGTGGGTGGAAGACCTCGGCCGCTCTAGAA

Sequence 1396

CCGGGCAGGTACCAGTTTGAGTTGAAACGGTATGTGACTTCCCAGCTGCGCCCTGGGCA
GTGACTGCATGCATCACTGAGAGGTCTGTCTACAGCAGATAAACTCCACAGATCACTC
CTCCTGTAATCCCTCTAAGTGCTCCAAGGCAGCAGAAAGGCCAGTGCAATTGAGGCTGGA
AGCAGGAGCAGAGACTCTGGGATATAGTGCGAAAGTCTTTCCCCTGTAGTTGGGCTAA
TCTGGAAAACTCAAAAACCTGGCCTGATTACCGAGGTTTCTTTTATGGATATTTAGTAT
TTAGATAAAATTTTACAGTATTCTTGAAATGAACCAATTAACACATAGT

Sequence 1397

AGGTACTTTAATCCCGTCTTACAGAAGAGAAAACTGAGATTTAGCAACATAAAAAGTATTT
CCCGTAAGTAAACAGTAGAGCCAAGATCTTGACCTACGCCATCTGATACCTGAGCCCATG
CTATAAAGAGGAGCATTAGAAATATTTGAAAGATAGAAATGAGAACTAGTCAATATTTA
TTTTGCTTAGCACTGTATTCAGTATTATGGCATCTTAAAGTAGTTAAGACTCAATATTT
ATCAAAAAAGTTTAAATCTAATCAGAGAAT

Sequence 1398

AGGTTTGAGTCGACCCACGCGTCCGGATTGATAGCTCTTTCTCGATTCCGTGGGTGGTGG
TGCATGGCCGTTCTTAGTTGGTGGAGCGATTTGTCTGGTTAATCCGATAACGAACGAGA
CTCTGGCATGCTAACTAGTTACGCGGACCTGCCCGGGCGGCCGCGCCCGGGCAGGTGC
AAGATTCCTGATCCGTATACAGTGATGTATTTACTAAACAGAGACCTGTGCAGAAATTAC
ATACTATCCATCTAGATAGGTTGTACACTTTTGCCTATTGATGGAATAGTTCCATTAT
CAAGTTTATACATCAAAAAGCTTTTGAAGTTCACCAGACTGTCCAT

Sequence 1399

CCGGGCAGGTACTGTAAATCTACTGTAATCCTGTTTTGCAGAATACTGCACGACGGAGAT
TGAGAAGTGAGAGCTCTTATGACATAGATAACATTGTGATTCCCATGTCATTAGTAGCCC
CAGCTAAATTTAGAGAACTCCAATATAAGGGAAATACTTACTCCCAGGGTATGGTATAC

TABLE 1
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TTTACCATCTTCATANTTTTTCTTTCCCTTCCCTTCCCTTAAAAAACTNAANTTTTTTC
NAAGGTGGAAGAANTTTTTAATTNAANTGGAAAGGGANGCTTCCCTTCTTCCCCAGTTCC
CTTCTTAGCCNATGGGAGGGGGGAAACCGGG

Sequence 1400

CCGCGGTGGCGGCGGATTCTCTGATTAGATTTTTAACTTTTTTGATGAAATATTGAGTCT
TAACTACTTTAAGATGCCATAATACTGAATACAGTGCTAAGCAAATAAATATTGACTAG
TTCTCATTTCTATCTTTCAAATATTTCTAATGCTCCTCTTTTATAGCATGGGCTCAGGTA
TCAGATGGCGTAGGTCAAGATCTTGGCTCTACTGTTTACTTACGGGAAATACTTTTATGT
TGCTAAATCTCAGNTTCTCTTCTGTAAGACGGGATTAAAGTACCT

Sequence 1401

CCGGGCAGGTACCAGTTTGAGTTGAAACGGTATGTGACTTCCCAGCTGCACCCTGGGCA
GNGACTGCATGCATCACTGAGAGGTCTGTCTACAGCAGATAAACTCCACAGATCACTC
CTCCTGTAATCCCTCTAAGTGCTCCAAGGCAGCAGAAAGGCCAGTGCAATTGAGGCTGGA
AGCAGGAGCAGAGACTCTGGGATATAGNGCGAAAGTCTTTTCCCTGTAGTTGGGCTAA
TCTGGAAAACTCAAAAACCTGGCCTGATTACCGAGGTTCTTTTATGGATATTAGTAT
TTAGATAAAATNTTACAGTATTCTTGAATA

Sequence 1402

AGGTACTCCCATTTCCTGAAACAAGCAGCCAGCAACTATCTCAGAAATGTGTCATTTTT
ACTGGTTATAATTCTTAAAAAGCTTGTTTTCTAAGATATGAAATGCCTGCCAGTATACA
AACTGCTGTAATACTTCCCTTTTTGCTTTTAGCGGGGAAAAAATAGCTTAATGACAGCA
TAGAATCATGTAGTAAATATAATTCATTTTTGAAGGTTTCACTATATCCTCTTCCATT
TGTTTATTTTAAATGATCTAATTGCAAACATGTCATCACTCCCTTGATGTTTACCTNCTT
GTTATGCATTTTTAGCAGGCTTTATTGTCACC

Sequence 1403

AGGTCCTAGCTTGAGTCGACCCACGCGTCCGATTTTTGCCTCCAGACTACAGATCAGAAA
ACTGAGACTCAGAATGTTTCAATTCCTTGTTTAAAGATCACAAAAGTCTTGGAGGTATAA
TGGAAGTCAAAAAAAGTGGCGCCGCGCACTTTTTTTTTTTTTTTTTT
CAATATTATTTATCAAAATAAATTTATTAAGTATTCAAAGACCACTTCAAAGNGTAGC
TGCCTTCAAGACAGATTTTGGCACTCATAACGGACACTGCAGTTTTCAACACCATAGCA
CTCATTCTATTTACACATCATTTTTAACA

Sequence 1404

AGGTGTTAGTTACCACTTCATTACTGGAGGGCACTGTCACAACTTCTGACTATCCAGAC
TTGAAGCTGGAAGCAAATACAAGTCTGAGGGGCTTAAGCTGGGAGGTTCTGGCCTCTCC
CTAGCTCTCTATGGCTCTACCTCTCTGCTTGAAGCTCCCTGCACTGCACTCCCATTACTC
TGAAGTGGGATAGGACCACTGCTGACAGGGCCCCACCTTCAACTTCTTTCATTGCTCCTC
TTTTCAGGAAATCCCCACCCTGGGGATACTTCAAAAGACCT

Sequence 1405

AGGTGATTGAGCAGGTCTGGGGTGGGACTGAGAGCTTGCATCTCTAACAAGCTCCCAGCG
AGGCTGATCCTGTTGCTCCAGGGACCACACCTTGAGAACCACTGGTTGGGCATTGATGAG
GTCAACCAGGAGAAGCAGTGTCCCCTAGAAGTGGCAGGAGAGAAAGGACAAGGCTAAGAA
ACAGTGAACAGGAGTCAAGTAAATGCAGCTGCCAACAGGCGGGGGTCTTGAATTCACAT
TCTTGGTTCCAGGTGACGTTTCTGGGAGTCAACAACCCTTCTCCTATGAAAAAGAAAAG
GGCCAGACACAGTGGCACACGGCTGTAACC

Sequence 1406

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCGGAGGTACATGTCCCTAAATATTTAAC
TGTTACTTGTAACTTGTGTAATTTATTATTTATTTAATCAAAATTCTGAATATTTTAT
TTAAATGAAAGTTGCAAAAAAAGTGGCGCCCGGCGCCCGGGCAGGT
ACATACCTCCTTGACAAATGGAGGGGAATTCATTTTCACTGAGGAGTGTCTTAGTG
TATAAAACCATGCTGGTATATGGCTTCAAGTTGTAATAAGTGAAGTGAAGTAAAGAA
AATAGGGGATGGTCCAGGATCTCCACTGATAAGACTGTTTTTAAAGTAACTTAAAGGAC

Sequence 1407

TABLE 1
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AGGTACTCAATCTAATCCAAAATTTTCTTTCTTAGCAATCTATTTTCTGTATTTAGAAAA
ATGTTTTTTATTTCAAAGAGCCTCTCAAAGAGCATTTCACGTATCTTTTACTGTTTTCT
CTCCACCTCCAAGGGTCTGTCTAGATCAGTGCGGACGCGTGGGTCGAAGACCTGCCCCG
GCGGCCGCGCCCGGGCAGGTACTGAGGACAAATCAGTTCTCTGTGACCAGACATGAGA
AGGTTGCCAATGGGCTGTTGGGCGACCAAGGCCTTCCCGGAGTCTTCGTCTCTATGAGC
TCTCGCCCATGATGGTGAAGCTGACGGAGAAGCACAGGTCCTTCACCCACTT

Sequence 1408

AGGTACATATCACACATTTCCAAATTTGAGACCACTAATGTTTTTAATTTCAAATATGT
ATATAAATATGTATTCTTATTTCCAATTATTTCTTGGCATGAATTCCTAGAAATTGATC
TATTTAGTATAAGTGCTTTTTAGCTATATGTCCACTAGTATGGTATGAGAATGCCCTGT
TTATGCCAGTATTATCATCATTGAATATATTACTGCTGATGTTGTGGTAATACATTTAAA
CCAATGTGATGGGGCAAAAAAATTATTTTTACTTACATCTTTAAAATTACTGGNGATC
TCTGNTATTGACAAGCTGGGCATANAAAAAGTAAATTAATAGAATT

Sequence 1409

CCGGGCAGGTGCGACGCGTGGGTCGAAGCTTGTACAAAAACCCAAGTATCACCTGAATTA
CAATTATTCTTAAAAATTTGTCCTTAAATAGCTTACTCTTGGAAGATTTGTTTCTATGTAG
ACATTATGGTAAAAGTTACTCTGAAACTCTTTCTTTAGTTATCTGTTTATTCTGAGCTC
AACAAGATTGAAGTAAGTTTTCGGGAGCTACAGAAATTAATCAAGAAAAGAATAATAGA
GGATTATATTCAATTGAAGTGCTGGAGCTCTTCTGATATTATCAATTCTCCTTCATAGAC
ATTTTATAAAGCTCTTTTATGTGAACTCTTGCTTCATCCAGGCAAG

Sequence 1410

AGGTCTTCGACCCACGCGTCCGTTTTAGATCCAAATAATGACTCATTAAATATAATTATG
TTTTAAGTATACTGAATTTCTGTTAGCTTAAATGTTAATTCTCAGGAATGATTTTCTCA
CACTTTGTGTTGGCTAATAATAAAAGCACTGTTTTATTCTCAAACTCCTTTTTCAAAAA
TTAGGGAGAGAGCAGTAGTGATCATTTTTATGTGAGCCCTTTGAAATGATGGTGTGAGAG
NGCAGAGAANCAATGGGAGTTTTGATGCCAAAAGGTTTTTTTTGCAGTNAAAGTAAAAA
TTTGAATTAGTTGGCATTATAGAGGAACCCCTTTTTGTACCTGGCCCGGGCGGCC

Sequence 1411

AGGTGATTGAGCAGGTCTGGGGTGGGACTGAGAGCTTGCATCTCTAACAAGCTCCCAGCG
AGGCTGATCCTGTTGCTCCAGGGACCACACCTTGAGAACCCTGGTTGGGCATTGATGAG
GTCAACCAGGAGAAGCAGTGTCCTTAGAACTGGCAGGAGAGAAAGGACAAGGCTAAGAA
ACAGTGAACAGGAGTCAAGTAAATGCAGCTGCCAACAGGCGGGGGTCTTGAGTTCACAT
TCTTGGTTCCAGGTGACGTTTCTGGGAGTCAACAACCTTCTCCTATGAAAAAGAAA

Sequence 1412

CCGGGCAGGTGCCTAATATATTTACTCTCTGGTCCTTTACAGGAAAAGTTTGCCAACCTC
TGGCTTAGATGATCACCTGAGGCCAAGGAGCCTCGCCCTTGAGCACAAGACTATGTAGTC
AGTAAAGCACAAACAAAATTGGGGCTTTCCCTAGCAAGGTTGGAAAGGCGGAGAAGAAAT
GGATTTGGATAGGTAGTCAACAATGTCTGTTTTATGTTACCACACATTTTCTCGAGAAAT
TTCAATCAGCTCTCTGAGAACAGATTCATCTTTAAATGAATGTTTCATAGGTAACAGCAAC
TCATGCATCAATGTTGCAAAGTGAGCTCATTTTCACATTGCTTCAG

Sequence 1413

AGGTCAAGCTTCGNTCCACGCGTCCGGGAAAAACGGGGTTACTAGTAGCCGCCCATAGCC
TGCAACCTTTGCACTCCACTGTGCAATGCTGGCCCTGCACGCTGGGGGCTGTTNGCCCT
GGCCCCCTTTGGTTCTGGCCCTTAANAACAGGCNGGTTTTATTAAACCCCAANNNN
CCCGGNTTANAAGGGGAATTNAAAAAGGGCCCCGGCTTTNGNAAAAAAAAA

Sequence 1414

NCNGNCCAGGTCTACTCAAGTAGTCTTTACCCCTACTCAAGTAGGGGGTAAAGNGTAGA
ACANGGAGTTTTGATCTGTGTTCAACATGATTGCGAACCATCAATTGAGATAACTCACTA
CCTTCAGGCCAGCCAGNTACATACTTTGAAAAGCCAAGAGTGAAGCANGGTTGATNTTC
ATCCAATTCTTGNNCTTTTTGTTAAAGGCANNAATAAGANAGGGTGGNTNCGGGCAATCA
CTTAGCTAA

TABLE 1

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Sequence 1415

AGGTCCTTCGACCCACGCGTCCGTTTTAGATCCAAATAATGACTCATTAAATATAATTATG
TTTAAAGTATACTGAATTTCTGTTAGCTTAAAATGTTAATTCTCAGGAATGATTTTCTCA
CACTTTGTGTTGGCTAATAATAAAAGCACTGTTTTATTCTCAAACTCCTTTTTCAAAAA
TTAGGGAGAGAGCAGTAGTGATCATTTATGTGAGCCCCTTTGAAATGATGGTGTCAGAGT
GCAGAGAAACAATGGAGTTTTGATGCCAAAAAGGTTTTTTGCAGTAAAAGTAAAAATTT
GGAATTAGTTGGCATATAGAGGAACCCTTTTGTACCTGCCCGGGCGG

Sequence 1416

AGGTGTACAAGCTTCGACCCACGCGTCCGGGATGAGTTTGTATGTGTAAAGTGCTTGAAA
CAGTGCCTGCCACATACTAAGTGTTGGATAAGTGTTTGTATTAAAAAAAAAAAAAAAAAA
AAGTGCNGGCCGGCCGCCCGGGCAGGTCAGATGATTGCAGAATTTATGTGATTACTGGGT
ACTCTAATGGTAAGGAGAAATTAAGACCAGCTAGTTGTTAATCTTAACTTTTAGTCATTA
AGGAGAATTTCCAAGACAAAAGTGAATCCAGCTGCTTACCTAGGAATACGGCTTAGGCT
GAAAACCTTCTATCGTCTTAGAAATGGGA

Sequence 1417

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGTAATCCTGTGAGAAAG
ACAGGACAGAAACCACTGTGCCTATTTTACAGATACGAAAAGTGAAGGCACAGGTAAGGG
GCTTGTCTGTAGTCCCATAGCTAGCAGATGGCTGGAGCCAAGACTGAGGCTCGTTCTTCA
ATGCTGAGCCAGGGCTCCTTCCGCTGCACCACAAGAACGCTAGACCACTCGCCACCAGCC
TTCTCATTCCCTCTTCTCCATTCTAATCATTTCTAGCTGGCTGGCCTCCACAGAGCATA
GGAAAACAGCCAGGGCCGGGCACGGTGGCTCATGCCTGTAATCTCAACACTCTGGGAGGC
CGAGCCGGGTGGATCACCTGAGGTGAGGAATTCGAGACCAGCCTGGCCAACATGTTAAAA
CCCCATCTCTACTAAAAATATAAAAAATTAGCCAGGCATGGTGGCGCACACCTGTAATCCC
AGCTACTCAAGAGGCTGAGGCAGGAGAATTGCTTAAATCTGGGAGGCAGGAAGTT

Sequence 1418

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCCGGNCCGAGGNNCAAAAGAGAGACAAAAGG
GTTCTCTTGAAACAAGAAGAGTGACTCCAGATGTGGCCTGAATAATTGCCATGTTAAGT
TAATGCAAAAGATCAGAACAGGGCTACATTTGCACAGGCAGTTTCTCTCCGGGCCGTAGT
TTTCACTGATGATCACCTTTCACAGCATTTTCCCCAACCCAGCATTTCACTTAGTCTTCTC
TATACCCAGCACCTCCCCCGGCACCCCCGGCAAGCCCACTATCACTTCCGACTTCCAACG
TGGCATCCGTGAGATCTGTCCACATTAGGCGAAGCAGGAGAACACTGAGAGCAGCAGGAT
GGGTTTGAAAGAGCATGCCTCTGAAACACAGCTTCTTGGGAATTCACATGAGGCCAGT
CCTACAGAGAGCAAGATGCACCCAGGATTTCTTCATTTTCTAATAGATGTGGGAGTGCT
CCATTTTCCCCGACAGCGAATTTCCCTGAGAAACGATACTAGACCCTGGGTTTGCCAC
CTTGTAACCTTCTCTTATCTNCTCCTTTTCATCCCTAATTCA

Sequence 1419

CCGCGGTGGCGGCCGCCCGGGCAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGT
CACCACACTCTACAGAGGCAGTCACTACATGACACATTCCGCTTCTGCCTGGTCACCAA
CTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCC
CAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGG
CTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACC
AACAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTCAACATCACCAACCTACCATA
TTCCCAGGACAAAGCCAGCCAGGCACCAATTACCAGAGGAACAAAAGGAATATTGA
GGATGCGCTCAACCAACTCTCCGAAACAGCAGCATCAAGAGTTATT

Sequence 1420

CCGCGGTGGCGGCCGAGGTACACTGTAATAGCCTTTACCAAACGTGTTTGACAAGGACC
ATAATTAACATCACTTAGTGAATTGTGATAAAGAAAAAAGCCATGATTTATTCGATGT
GATTGGCTTGTTTTATGTGGCGCCAAGAACGAACCTGTTTAGCAGCTGTAACCAATGGT
ACGCGGGGGAGGCGAACAATGGCGGAGCTGGGCGAAGCCGATGAAGCGGAGTTGCAGCGC
CTGGTGGCCGCCGAGCAGCAGAAGGCGCAGTTTACTGCACAGGTGCATCACTTCATGGAG
TTATGTTGGGATAAATGTGTGGAGAAGCCAGGGAATCGCCTAGACTCTCGCACTGAAAAT

TABLE 1
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TGTCTCTCCAGCTGTGTAGACCGCTTCATTGACACCACTCTTGCCATCACCAGTCGGTTT
GCCAGATTGTACCTGCCCCGGCCGCTCTAGAACTA

Sequence 1421

CCCCGCGGTGGCGGCCGAGGTACTTTGGGAGACCACCCCACTATGGTTCCATACACTT
ANACTGCGCCAGCTACAGNTTNATACACTTNGGACAAANTATCTGATAAAATAGAGAAA
AAAATCTTATTTACTATAGCATTACATAATAAATTTNTGAGAAAAAAATTAACCAGGGAT
GTAAAAAACCTTTACAATAAAAAATAAATAAAAAAGGAAGATCCAAATAAATTTTAAAT
ATTTTATGTCTTTGGATTGAAAGAATAAATATTAATAAAGTGCCATATTATCCAAAGTGA
TCTATAGATTCAATACACTTCCTATCAAAATTGCAGTATTTTTTTCACAGTAATGGAAAT
TCAATTCTAAATTTACATGAACTAAAATAAACTTTGAATAGCCAAAACAGTCTTGAGG
AAAAGGAACAAGGCAGAAGAATATCATACTTACAATTTCAATCTATATTTGAAGACTTTA
TAGAANTAAAA

Sequence 1422

CGGGCAGGTACGATGGGAGGACAGCTTTGTAGAAAGGACATTATCCAGCTAATAGCAAAC
TTTGTGGATCCCAATCCGAGATTTCCCTTGCTGAAAGACAAGAAAGTATCTCATATAAAA
GTGCTGTAGCAAGTATTTGTATACTCCAGAAATAAGCTTCTGTAATTCTTAGCTGCCAAT
GTGTTCAAGGCGTGATGACTCGGTTTCTGTTTCTCTGAACATCAATACTAGGGTCTGTATA
ATTTCAATGCATGCCACCAGCTTCATCAACCCTT

Sequence 1423

AGGTACAATCAGAATGCTGCATTCTCCAGCCATAAAGATCGCTCCCTCTTCTTTTCAAAC
ATCCCTGTCCCTCAAGGTCTAGCTCAAGACGGTCACCTTAAGAAAAGCTCCCTTTGTGCA
GCAGTGACTCCATACCAGGCCCTGCTTTAAACGCTTTATCTGCATTATCTTACTTGATTCT
TCGCAATAGCCCTGGGTGGTAGGTGCAATTATTATCTCCAGTTTATAAAAGAAGATACTG
AGGGTCAGAGAAGTTAAGTGACCGGCTCAAGGTGTCACATTGAGTAAGCGTTGAAGGGGC
CTGTGTTGGTCTGTCTTGAAGATGCCCCCTACCGACTACACTTTCAATGATTTTCTGCC
TTGAACCTGGCCCCATGACTAAA

Sequence 1424

NNCAAACCTCCTATGCTTTCCCTTGGCATCGGCTACACATCATAGTATTCATTGCCTCCTT
GAGGTCATCTTGAGCTTGGACAGAACTCATTTACTGACCGGCTCAGCTCATTCTCTGC
CATTCGTTTCATCTCATACTCCTTTTCGCTTTTCAGCATTGCTGACAATGTCCAAGCTGC
TCGCAAAACCTTGAAGGCCTCCTCAGCCCGGGGATGATGATTTTTGTGAGGATGAACCAT
CACTGCCAGCTGTCTATAG

Sequence 1425

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTGAAGTGAATTTCCCC
AAATGGCTCTTTGTGCAGCCGAGCAGCTGTTGAGACTTATGAGCAGACAGGAAGTCCA
GAGGGCAATGGTGTGTTTTAACTGGCATCTGTTTAAGGCCTTTAACACGTGAATCGTCTG
ATCACCCATTTGCAGGATGTCTTGAGTATACACATTGAGTGCATGTTTGGATCCCCACC
AGCTGTGCTCAGAAACCCAGAGTGACTTCTACGACAGACAGCACTTCACAGGCATCGCT
GTAGGACTGCAGCTGTCCACTGATGGCACTAATGACCGAGCTGGGGAGGGAGTCTGGGA
AATGAAAAGCAGGAGAGGGATGTCTGTGGGCTGGGTTTCTGGCATCTCACCACCTGGTAA
GAGAGCCGAGCCCCTTCACTGCCCAAGCCACATGCG

Sequence 1426

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTGGGCCAAGGCTGCAAT
CAGTGATTGAGCCGACTGCTCTTTGAGTCCAGATGTTGATCCAGTTCTTGCTTTTCAACG
AGAAGGATTTGGACGTGAGAGTATGTCAGAAAAACGCACAAAGCAATTTTCAGATGCCAG
TCAATTGGATTTGTTAAACACGAAAATCAAAAAGCATGGATTTAGGTATAGCTGACGA
GACTAAACTCAATACAGTGGATGACCAGAAAGCAGGTTCTCCAGCAGAGATGTGGGTCC
TTCCCTGGGTCTGAAGAAGTCAAGCTCGTTGGAGAGTCTGCAGACCGCAGTTGCCGAGGT
GACTTTGAATGGGGATATTCTTTCCATCGTCCA

Sequence 1427

AATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACATCCAGGAC

TABLE 1

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'AAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTC
ACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTG
GACCCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGG
CTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTAT
CAACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTA
CCATATTTCCAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAAT
ATTGAGGATGCGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGTTATTTTCTGAC
TGTCAAGTTTCAACATTCAGGGTCTGTCCCCAACAGGCACCAC

Sequence 1428

AGGTACAAATAGATACCTTCAAGGAGAATGAAAACGGGGAATATACTGAGCACTTACACT
CGGCCAGCTGCCAGATCAAAGTTTTCAAGCCCAAAGGTGCAGACAGAAAGCAAAAACGG
ATAGGGAAAAATGGAGAAACGAACACCTCATGAAAAGGAGAAATATCAGCCTTCCTATG
AGACAACCATACTCACAGAGGTAAAAAGATTTCTTTTGGTGACAATTCAGTTCATAATT
TTTAATCTTAAAAATTCATCACTTCCAACTGGTCAGAATTTACTTCTCCTAAGCCTTGA
GGGACACAGTATCACATGGATTCTGTGTCCAGCGGCCTTAACAGGAAGATTGCTTTAGAA
TTTGGCACGAACCATGCCACTGTCTCTGT

Sequence 1429

NCNGNCCAGGTA CTNNNNACANTGNAACTNNTCANGNGCCCATCATTGCTGGATTTGT
ATTTAACATTATGTTTCACCCAGACAACAGCTCAGAGAACTGGGCAATGGCTGCTNATGT
GTTGAGCCGGGGCATA CAGGATGAAGAGGGACAATGAGAGGGAATGAATTCTATTCTANA
CACCTGAGTTTGAGGAACCTATGGAAATGTCCAGGAGGCAACTAAATGAAACAGCCTGT
GGTAGACAGAATAATGGCCCCAAAGATGTCTACAGCCTAATCCAGGAGCCTGTGAAAAT
GTTCCCTTCGCATGGTAAAGGGATGTGGCAGATATGATTAAGCTAAGGATCTTGAGATGG
AGAGTTTATCCAGGATTATCCAGGTGTGCCAGTATAAT

Sequence 1430

AGGTACGCGGGACACAGGGTCCTGTGCAACANGNGGACTAACAGTAACACCGCCACGCC
GGCAGCAAAGCTCATTTTGGTCCCCGCCCGTTCTCTTTCTCTTTTAACTCCTTCCCT
CTTTGCGGATTCTAGAACGGAACCTTTTTTTAATTCTTCCAGTAGAAACGTAGGAACAA
TTTCGTGAACGCAATCNGGAGTGCCCAACATGGC

Sequence 1431

AGGTACCCCTGTTTAAACAAGGGGTAGGGGCCCTTCTGAGACTGTTTCCTCTACAGAGTAAG
GGTTCGTT CAGCCTTTTCCGTGGCCTGCCAAGA ACTCAACTCCATGTTCCCTCACTTCTCT
GTAATTGACCTTGTCCAGGACTTTCTGACCTTGGAGAATTCACCTTTGCTCTTTCTGCTG
CTTCGTGCATTCTTCCACCAAATGTCTTAACTGACTGGGCTCCTTTCCAACTCAAGGGC
TTTGCCAAATGCCACCAGCTCAGGGAGGCCTTTNCTGGCCATGACACTTGAAGTTGCAAC
ACTCCCCCGCAGTCTCCCGTGCCCCAGATGTAAGTTCCATGAGGGCAAGCCCTGTGCTTT
TACCACCATATCCCCAGCATCTTGAGCTGTGCCTGGCCCCAAGAAATATTTGTTGAATGAA
TGAATTTAAAAGGGGATATTCATGANGGCTTACACATTCTCAATGGGT

Sequence 1432

GGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCAGGTA CTTTTTTTTTCTTTTT
CTTTTTTTTTTTTTTAAAGTTTTTGGGATCGTGTCTCACTCCTGTTGCGCATGCCTGTA
GTCCCAGCTACTCAGGAGGCTGAGGCAGGATAATTGCTTGAACCCGGGAGGTGGAGGTTG
CAGTGAGCCGAGATCATGCCACTGCACTCCAGCCTGGGCAACAGAGTGAGACTTTGTCTT
CGGAAAAAAAAAAAAAAAAAAGATTTGGCGGATGAAAATAACCAGAATGAAAATAGCTNGAA
AACTCANCAAGCAGGAAGCTCCCCTTCTACCCCTTTTGTTCCTTGCCGATAGAAATCAGT
CACTATTAGAAAAAATGAAAGACGCTCTGTTTAAACAATGATGACAGCAGTACCT

Sequence 1433

GCGGTGGCGGCCGAGGTACTTCCCTTTTAAAGAGATGAGTCACCGCAACTGAAACTTCTCT
ATTTCTTTTCTTTCTGATTGTTCTCCAGAATTAGGACTAGTAACAGTCCTGAANNCTTG
TNTTCTTATCTAGAAACTCAGTATCTTCCCTTCCGTTTGTCTTAAATATTAGTACA
CGCTTTCTCAAGCCTAGCCGATTAGAAGGGGCTGCCGGGCTTCCACCACACCTCATCGAG

TABLE 1
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GNAATGGTTTTNTGGNNAAAAAGCCCATGGAAATACTGAGCCCATGCCNCTCACGTTGNA
AAAGCCCCGTTCCCTTGCC

Sequence 1434

AGCTCCCCGCGGTGGCGTAACCTATCTCATTTTAGATNAGTTTGCAAAGAGAGTTGGTGG
CTAAGGCCATAGCTTAGCCTCCTGACCCCTACCTTCCCACGTTCTTTCCAAGAGATTCTC
CTCAGGAATAACACTTGCAAGGGAGTTCCTGATGAAGTGGATTCTTGTTATTCTAGGAAT
AGGCCTACATGGTGCCTGGCAATGTGAGATTATACCTCAGCATTTCCAAAGAGCATAAA
AATCTAGAGCTGGGGGGTTTAAACATGACAAACCTAATTTAAGTAGGCAGACAAATAT
TTAAATTTTCCCCTACCCTTGTTTCTACATCGGTCCATTGAGACTCTGCACCATCTGGT
TGGGCAGGTGCTACTGTGGAAGATCTTCGTTTTGACTACCATTTGGTGATTCTTGCTTT
AAAGTCTCAATATCAGTAACTGAACAGATTNCCACCACCCCTTGTTTATAAATATCAC
CCTTAATTAGTTTAAAGTTTCAATCTCCCCATCGGAGGCTAGTTCTGGTGGGTGAGCATG
TACCTGCCNNGGCGGCGCTCTANAACCTAAGTGGATCCCC

Sequence 1435

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTNTTTTT
TTTTTTTTTTTTTTTTGGAGCCAAATTGTGTGATTCTACTGGGAAACACAGTGGCC
AAATCCTTTTGAATTGTTTCTTCTAGAGACTTTAACTCTTCTGACTGCAAATCTTAGTG
TCCTGTGAGTATTAGTTGATTAACTTACTTGCTGCTTAGTGAAATACAGCCAGCTATAG
GTATCTTCTGGAGTAGCTCAACACAACCTTTCTCTTGCTAGAGTGAATCTTGCTAACAGA
ACCCAAAGATGCGCACATATACCCACAGGAGCTGGAGGTCCCTCGCATGCTCCTCTCGTG
CCAGCCTTTGCCCTTACCCTTCACTCTCTCCCTCCAGGAGCGGTGCGGTACCTCGG

Sequence 1436

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGATTTGTCTTGCTC
ACCTCTTACCAAATCCAAGAATGGTTTCTATCCAGTGAATGGCAAATTCATCTGATAGGT
AAGGGAATAATGGGTCAAATGGTAGCAAACACTTCTTTCAAATTTCTACTAAAAGACTT
GCTGTTGTTTTTCTTATAAAGGGGCAATTTCTCAACATACATCTTTTAAAGGAATCTCT
AGAAATTTGAGTGACTTTTTGGCCATAATCCTGTTTGATATATTTTGGTCAGCTGCTCA
AAACAAACATTCTCCTTGTAAGGTTATCTATCTGAAAGATACTAATTCATTTAAAGCAGC
TGCAGGTGAACAACCTAAAGATGACATGATTTGGGAGAAGAGGAAGGCAGATTACTGAAC
TGACAAGTGACCCAAAGCATAATTAGGTTTGTGCACATGGTAGCATGGAGGTTCCACACC
TACCTTCTACAGCGTATTAATAAAGAATATTGTCTTTGAAACATCTTCTAGCACCTTTT
TAATAAAACAAATTTCCCATCTTCAATTCTATTTTTTCCCAAATCTACCTTTAAAAAA
TTGT

Sequence 1437

CCGCGGTGGCGGCCGAGGTACAATAAACAGGGAATGAGAACTATTTACATGGAAGTTTCT
TTCTCATGATGCGGTGGAGAAGCCTCGGCCACTTGGTTCTGCCAGATGTTCTGGGGTTA
CTGTAAATGGGAAGGACAGGCAGAGCTAAACAAGGTAGGAGAATCGCCCCCTTTTTTGA
ATGTTTAAAGAGTTTGCTGCAGTATGCTGCATTCCATGTGTGCTGCTTACGGGAGCCAGG
GAAACTGGGATTCCACTAATTCAATTGTAATACTTGCGGGGGACCCTGGAGTTTTACGTA
ACATTTTGATTTGGGAAAAAANANANTGTTCTGCCCCGGGCG

Sequence 1438

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTGCCAGGC
ATGCTCCTGCCTTGGGCAGAGTGATATGTGTGAGTGCACCTGCCCTTCCCACAGCCTAG
AACGTTCTCCTCCAGACAGCACATATGGCCTGCTCTCTCACTTCTTAAGGTCTTTATT
CAAAAGTGACTTTCTCAGTGAAGCCCTGTCTGCTCACCCTGCGTAAAATTTAGCTCTTC
TTTCTATCTCTTCCCAGATTTTTTTCTCCTTCATGTTGTTGGTGTCTAAGGTTTAT
CATCTATTTGCTAATGGTCAGTAGAATGTAACCTCCACGTAAGCAAGGAGTTTTGTCTG
TTTTGTTTCATGTCTATGTCCTTAGTGCTGGAGCATTCCCTAGTATGCAGTAGGTGCTCA
ATAAATGTCAGTTGGATTAATGGCTGAAAGAAAGGTCACCGCTATAAGGATGGAGTCAGA
GAACAAACACAGTTAATTCCTGGTCCACTGTTTTGCTTCCACTAAATTGTATTTGGTCT
ACGGCTTCTCGCTTGCCCTGGAACCTGCTCAGAACACTGCTCCCTTCTCCTTCTTCTT

TABLE 1

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'CTCCCTCCGGATAAATTCT

Sequence 1439

CCGGGCAGGTACCGCGGGGGGCCGTGGTCAGAGCGAGCTTCGGAGAAGCAGTGGTGGGT
CCATGTGATGGTGGAGTAGGAGGCAGGTCTCCGCGGTTCATCTGTGTTGCTCTAAATGAC
ACTGTTTCATTATTTTATGATGGCTGGAGAATATTTCTAAGTGTATGTATATGAAGAAGT
TCTTGATCTCTTTATCTGTGGATGAACAGCTACTTTGAAACATATGGTACCTCTGTGGTC
AGACCATTTGCCAAGCTTGTGAGGCCTCCTGTTTCAGGTATACGGTATTGAAGGTCGCTAT
GCCACAGCTCTTTATTCTGCTGCATCAAAACAGAATAAGCTGGAGCAAGTAGAAAAGGAA
GTTGTTGAGAAGTAGCACAAATCCTGAAGGAACCCAAAGTGGCTGCTTCTGTTTTGAATC
CC

Sequence 1440

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCANGGTACGCGGGTGCT
TTCATAGCCGCGGACACAACCTTGGGCCACAGTTAACCAGAGGAGGAAGGCAGAGCGTGCT
GAGCAGAGCACCAAGGAAGAGAGCTCGGCTAGCCGGAAGGTCCGAATGGATTATTTGG
TGAGGCCAAGGAACCCACTGCCTCCACGGTGTTCTCCAGGAGGCTCCTCCCTTCACTAA
GGCAGCAAGGAGTGAAGTGGTGGGGGAAGAATTGTTGTCATCCTTTCTCTACGACTCCA
AGAGAACTTTATACTGGAGGAAGAATATTCTACCACTTTGGGATGCTTCCAAAGAAATG
GGATACCAAAGGAGTGAAGTTCAGGTGATTGGAAGTGGCCAAGCTGGAGGCGACCTATGG
AGACATGACCTTCAGTTCTTCTGAGATCGATAAAGCAAAAAAAAAAAAAAAAAAAGT
ACCT

Sequence 1441

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGATATTGTCAATGCGCAACATGGAGAG
ACTTTAAAACAAATGCTAGGGATTAGAGTATAGATCAGATAGCTGGCAAATCTATAGGAA
GGGAAAAGTAATTTTAAACACACAGCATTTGTTTCTGCTGCTCTATCACAATAGCTAGG
TTTTTAAATAAGTAGGCTTTATACCAAGCCATAAAAATGAATTGCTGGGGCTCTTTGGGA
CTAGGGAAGGCGGGAAATTTTAGATATTGCTGTTGGCTTAGTGAAAATGCATGCTTACCC
GGTCACCTGTGGCTCCAGCAGGACCAGGGGCACCTACAGCACCAGGAGCACCTTAGTACC
T

Sequence 1442

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTTATTACATA
TGATTTTTATTAGTTTCTGGAGGCAAATTTAATTTTATTTTAAAATCAAATCTATTTT
AAAAGAAATAGTTCTCAAAAAGACAACGATGACTGGGTGTGGTGGTGTGTGCCTGTAGTT
CAGGCTGCTCGGGAGACAGAGGCAGGAGAACCCTTGAGGCCAGTTCACTCTAGCCTGGG
TAACATAGCAGGACCCTGTCCCTTAAATAATAAAAAATTTAA

Sequence 1443

CCGCGGTGGCGGCCGCCCGGGCAGGTACTAGGGTGCTCCTGGTGCTGTAGGTGCCCCTGG
TCCTGCTGGAGCCACAGGTGACCGGGTAAGCATGCATTTTCACTAAGCCAACAGCAATAT
CTAAAATTTCCCGCCTTCCCTAGTCCCAAAGAGCCCCAGCAATTCATTTTATGGCTTGG
TATAAAGCCTACTTATTTAAAAACCTAGCTATTGTGATAGAGCAGCAGGAAACAAATGCT
GTGTGTTTAAAATTACTTTTCCCTTCCCTATAGATTGCCAGCTATCTGATCTATACTCTA
ATCCCTAGCATTTGTTTTAAAGTCTCTCCATGTTGCGCATTAAACAATATCCTAATGCACT
GAGGCTTCTCAAAGCCTTCAATTATTACCAAAAAAAAAAAAAAAAANNNTTNNAGGTACCT

Sequence 1444

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAAGACCAAT
TCCTTCTTAACCTGGATTCCACTGTCCTTGGTGAAAATACTTTGATGGAACCTACCAGA
TGCTTTATCTTTGGTTAAAGGAACATACTGTNGAAATTCACACTGCCACAGNGATAT
TTGTTTCTTTCCAATTATNTGTTGCAACANAAGATGACTTTTATACCTCTCACAATCTGG
NTAAAAATCTTGCTTGTTCCTAAAGATACCAAGTGACAAAATCCGTATCAGCAAAATAA
GAGGGAAGAGTCTGAGGAGGAAGAGATCCATGGGATTTCATAATTGAAATAGAGATTGGAG
ACCCTCCTATTCAAGTTCATAAGCAATGGCACCACAGGTGAGATGCAGTTATCTGAACTCC
AGGAANTTGCTGGTCTCTTGGACAAGCTGTNATTTTAGGAAA

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AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAGAGTCACTCCTGCC
TTCACCATGAAGTCCAGCGGCCTCTTCCCCTTCTGGTGCTGCTTGCCCTGGGAAGTCTG
GCACCTTGGGCTGTGGAAGGCTCTGAAAAGTGTAAAGTTGGAGTCACTCTGGTCTAATCTG
GGCTGCAGGGTCAGAGGTGGGGTCTCCTTGTGGTGTGGGTGTGTCCCCTTCTGTAGGCTC
TGATCCCTCAGCTTAGTTTCGGGAGACCTCCCTGAGGGTGAATACATGTCTGGCTGGGC
TCCAAGGTTTGTGTGGCAGTTTGAGCTTCTGGAAATGCTTCCTCTATGCAGCCATGCTGT
CAGCCCAGGTCCCCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCATACTNTGCCT
CTTTCTTTACCTGTCTGCGACTCTTCAAAAAAAAAAAAAAAAAAAAAA

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTCTTAATCCAAGACAA
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CTTTTCCCAGGTGTCCAGAGTTTCCAGAATTGTCCAAGGCTCAGTCCACACCAGTTC
TTCTCCAGTGTGCTCTCCTGAGAGGCCAGGCACACTCAACAATTATCTAGATGAGTTCCC
ACTTCTTTCCAAGTGAAGGTTCTGCTATCCTAGCATAGTCAGAATAAGTTAAATTATGTC
TCTTAAGAGGCACTGTTCCACTCCTTTTCAAGGNGTGTGGCATATTTGAAATATGTGACT
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TTNCAGATTTTAGAAAAGTGACCCATATACCATACATTGCA

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TCCAGGACAAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCGCTTCT
GCCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCT
CCAAATTTGAGCCCCAGCCTGGTGGAGCAAAGTCTTTCTAGATAAGACCCTGAATGCCTCAT
TCCATTGGCTGGGCTCCACCTACCAATTGGTGGACATCCATGTGACAGAAATGGAGTCAT
CAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCA
CCAACCTACCATATTTCCAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACA
AAAGGAATATTGAGGATGCGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGTTATT
TTCTGAC

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAATTGTCGTTTTTATCCCT
CTTATTGGGATATCATTTTAAAAACTTTATTGGGTTTTTATTGTTGTTGTTTGATCCCTA
ACCCTACAAAGAGCCTTCCTATTCCCCTCGCTGTTGGAGCAAACCATTATACCTTACTTC
CAGCAAGCAAAGTGCTTTGACTTCTTGCTTCAGTCATCAGCCAGCAAGAGGGAACAAAAC
TGTTCTTTTGCATTTTGCCGCTGAGATATGGCATTGCACTGCTTATATGCCAAGCTAATT
TATAGCAAGATATTGATCAAATATAGAAAGTTGATATTCAACCTCACAAAGGCTCTCAA
GTATAATCTTTCTATAGCCAACTGCTAATGCAAATTAACATATTTTCATTTTAACATGA
TTTCAAATCAGTTTTTCATACTACCCTTTGCTGGAAGAACTAAAAATATAGCAAATGC
AGAACCACAAACAATTGCAATGGGGTAGAAACATTGTAATATTTACTCTTTGCAAACCC
TGGGNGGTATTTTATTTTGGCTTCATTTCAATCATTGAAGTATATTCTTATTGGAAATGT
ACCTGCCCGGCCG

CCGCGGTGGCGGCCGCCGGGCAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTC
ACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCAACAA
TTGACGATGGA CTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCC
AGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGC
TCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCA
ACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATAT
TCCAGGACAAAGCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAATATTGAG
GATGCGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGTTATT

CCGCGGTGGCGGCCGAGGTACAAATTGNCGTTTTTATTCCTCTTATTGGGATATCATTTT

TABLE 1

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AAAACTTTATTGGGTTTTATTGTTGNTGNNTGATCCCTAACCCCTACAAAGAGCCTTCC
TATTCCCCTCGCTGTTGGAGCAAACCATTATACCTTACTTCCAGCAAGCAAAGTGCTTTG
ACTTCTTGCTTCAGTCATCAGCCAGCAAGAGGGAACAAAAGTGTCTTTTGCAATTTGCC
GCTGAGATATGGCATTGCACTGCTTATATGCCAAGCTAATTTATAGCAAGATATTGATCA
AATATAGAAAGTTGATATTCAACCTCACAGGGCTCTCAAAGTATAATCTTTCTATAGCC
AACTGCTAATGCAAATTAACATATTTTCAATTTAACATGATTTCAAATCAGTTTTTCA
TACTACCCCTTGCTGGAAGAACTAAAAATATAGCAAATGCAGAACCAACAAATTCGA
ATGGGGTAGAAACATTGTAATATTTACTCTTGCAAACCCTGGNGGTATTTTATTTTGG
CTTCATTTCAATCATTGNAGTATATTCTTAT

Sequence 1451

CCCCGCGGTGGCGGCCGNGGNACAAATTGTCGNTNNTATTCCTCTTATTGGGATATCATN
TAAAAAACTTTATTGGGTTNTTATTGTTGNTGTGGGNTCCCTAACCCCTACAAAGAGCCTT
CCTATTCCTCGCTGNTGGAGCAAACCATTATACCTTACTTCCAGCAAGCAAAGTGCTT
TGACTNCTTGCTTCAGTCATCAGCCAGCAAGAGGGAACAAAAGTGTCTTTNNCATTTTG
CCNCTGNGATATGNCATTGCACTGCTTATATGCCAAGCTAATTTATAGCAAGATATTGAN
CAAATATNGAAAGTTGNTATTCAACCTCACANGGGCTCTCAAAGTATAATCTTTCTATAG
CCAATGCTAATGCAAATTAACATATTTTCAATNTAACATGATTTCAAATCAGATTTT
CATACTACCCCTTGCTGGAAGAACTAAAAATAT

Sequence 1452

CCCCGCGGTGGCGGCCGAGGTACAAATTGTCGTTTTATTCTCTTATTGGGATATCATT
TAAAAAACTTTATTGGGTTTTATTGTTGNTGTNGGNCNTAACCCCTACAAAGAGCCTT
CCTATTCCTCGCTGTTGGAGCAAACCATTATACCTTACTTCCAGCAAGCAAAGTGCTT
TGACTTCTTGCTTCANTCATCAGCCAGCAAGAGGGAACAAAAGTGTCTTTTGCAATTTG
CCGCTGAGATATGGCATTGCACTGCTTATATGCCAAGCTAATTTATAGCAAGATATTGAT
CAAATATAGAAAGTTGATATTCAACCTCACANGGGCTCTCAAAGTATAATCTTTCTATAG
CCAATGCTAATGCAAATTAACATATTTTCAATTTAACATGATTTCAAATCAGTTTTT
CATACTACCCCTTGCTGGAAGAAA

Sequence 1453

GAANCCCCCTTTNGACGAANANNCGCGAATCGNGAGCTCCACCGNNGGCGGGCCCGAG
GGGGACNANGANTTTTTCTGNNCNTTTTTTTNNAAAAACNNGNGACTATTTAATCCATC
TAAAAATACAAATCAGGNAANGGGGGGAACCATAGGAAAATCCTCCACCTNTAACAGAG
CCGAAGNTACNNGGGCTTTCTGCTTGCTCCAAANAAATCCAAAGGGCTTGGATAGTTTGN
GGAANGGGGAATTATCTGTGTCTTCAAACCTAACTCCCAAGGATACCTCAAAGGACATTAA
AGGTNTACCACCACCATTTCTGGGGGAAGAAAAAGGGGGGTTTCTTGCCCTTGCTTGAAA
AGCCTTANAAATNNGGGGAAGCCTCCAAATNGCCNTTNGGGGGNGNAAAAAGGGGNNCCC
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GANCAAANGGGGGGGGGGGGCCCTNCCCCNAAGGCNAAGGGGGGGGGGCCCNNTTNGGGG
GGGCCNCNTGGGGGGNNGGNCCCCAAAAACCCCCCTAAACAAAANNTNGGGGGCTGGGC
CCNTAANGAGGAGGGCCCCNCCAGAGCCCAAAANTTNGGGGTTTNNACCCCANNNAAAT
TTTGGGGGGGTNTTTTTTTTACCCCNNTTNNGNCCCCNCCCCCTTGGGGGGGAAAA
AAAACCCCTTNAACCCCNNTTNTTNAACCCCCCCGGGGGGGGG

Sequence 1454

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGCAGGTACTTTNTTTTTTTT
TTTTTTTTTTATACCAGATTTTAAGGAAAGACTGCTTGCTTCTGANAAAGAATTCTCGG
AGTTGATTCTCTGCTCCATTTGCTCCTTTCTCAACCTCTTTAGTCCTCGTTCTCTGCAGT
AAGAAGCTAGTGACAACTGGAATTTAGCTCCAGNGGGCTTTCTTCCGGGTGGNGCCTGG
ACAGGCTGCTCCTGCTGCTAAGGCTTCTGGAGCTGTTATTGAAGATGTCAGCTTCTGCCA
CTGNGGTCTGCTTTTGGAGTCTGCATTGGTTTTGCCTCGATCTCTATCATTCTTCTCAT
TATTTTCATGAATGAA

Sequence 1455

CGAGGTACTGACCTCGTNTGTCCCTTCCCCTNCACCGNTCCCCACAGCTTTGCACCCCTT

TABLE 1

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TCCTCCCCATACANACACNNNCCATTTTATTNTTTGGGCCATTACCCCATACCCCTTATT
GCTGCCAAAACACATTGGGGGCTTGGGGGGGGGCCAAGGGGCCTTGGGCATGGGACCAA
GGACCACCTCCCCCTACCCATATCCCTCCCGTGTTGTGGGGTTTNGGGGAAAAAACCT
TTTTGGTTTTTTTGGGGGGGTCTTTTTTTTCTCGGAAATTAANAAAAAAGGATT
NCTTACCTACAAGAGAAANAAAAAGAAAAAGGGTACCCTTGGCCCCGGGGGCCGGGGCC
CGGCTTTCTTAAGGAACCTAAGGTGGGGAATCCCCCCCCGGGGGCCTTGCCAAGGGAAA
TTCCGNATTATTCNAAAGGCCTTAATCCGGAATNACCCCGGTNCGNACCCTTCGGAGG
GGGGGGGGGGCCCCGGGGTAACCCCCAAGCTTTTTTGGTTTCCCC

Sequence 1456

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGAGATAAGACCC
TGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAG
AAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGA
ATTCACCATCACCAACCTACCATATCCCGGGACAAAGCCCAGCCAGGCACCACCAATT
ACCAGAGGAACAAAAGGAATATTGAGGATGCGCTCAACCAACTCTCCGAAACAGCAGCA
TCAAGAGTTATTTTTCTGACTGTCAAGTTTCAACATTGAGTCTGTCCCCAACAGGCACC
ACACCGGGGTGGACTCCCTGTGTAACCTTCTCGCCACTGGCTCGGAGAGTAGACAGAGTTG
CCATCTATGAGGAATTTCTGCGGATGACCCGGAATGGGTACCTGCCCGGGCCGGCCGCTT
CGGCTTTAGAAGTAGTN

Sequence 1457

GGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAGTCCAAATTTTAAGGAAAATGA
GTCCCGCAATGAGTTTCTCATGCTTCGCCTGTGCGTGGACCGGNCAGCTTCTGGGTGTG
ACTGGAGCAGGGCTTGTCTCTTCTTCAAGATCACTTTGCAGGGGTTGGCAAAGCCGCTC
CCATCCACGTACTCTCTGGACACAATAATTTTGGCCTATTGCCATCAAATGCCATTTTC
CACTGCTGGAAGCAATGTCAAAAAAGGGCTGGCCCCAAAAAAGACCCAGAGCTGTCAATA
CAACACTGGAGACAGATGCAACTGAATAAACCTGTTTTACCCAATTGCACTATTTGGTC
CT

Sequence 1458

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTGGAACAGGGATAA
GTTCTTGGATAAGGNGCCAACATACCTATAAAAGCTGATTTTTGAGTAAATTATTGATTC
TAACATATGTAATGGATTTGGTGTGATAATTTTCTGATCTTAACTATAAGTGACTTTTT
ATTCTCCACCAGAAAAGATAAATGACTGAGAATGTAAGTCTGCGCTCTGATTAACACAAT
GGAGAAACGGAAAACTATCTCTGTTAAAACTGATTCCTGTCTTCTGATATCAA
TAAGAGGAAGGAAAATAAATTTTTGTGTGTAGATAGAAAAACATACCTGAGGCCAGGTG
CAGTGGATCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGGCGGGCAGATCAGCTGAG
GTCAGGAGTTCGAGACCAGCCTGGCCAACATGGNGAAATCACGTCTCTACTAAAAATACA
A

Sequence 1459

NGGGCGAATTGGAGCTCCACCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGCACTC
AGGGAGCTCAGATTTTGGAGACAGTAGCTGGCCGATGCTCCAGCTGAATAAAGCCCTTCC
TTCTACAAAAAAGAAAAAGAAAAAGAAAAACAGGATATCTGAAATTAAGACTGCAGGAT
GGAGTAGTTTTCTGAAAATGACAGGGTCCAAGGTGTGACNCACCGGGACCAAGTGCGCTGA
ACTGGAATGAAGTTAAGAAGCCAGTAAGAAACATCNCGGATAATATGGTGGATCAGTTC
AACAGNAATGACATTATTTCACCCATGGTCCCCAAAGGGAGGAGATGACTGGAGNATT
CAAATCTTCAAGGCAAGCCCTCAATGCCAGCCAGAGGATTTTAANGAGGGGCCTATTG
TTGTTCCAGAAAGGAGGACTCTGNGGCCAAAACCGCCAAGAATGGGATTTCAAGAATTT
ACTTCAAATTCCTGTGAGGATTTCTTTAACCTGGGTGGGGCTTATACCCAAAACCCCA
AAAAAATTTTAAGCCAGCCTTCNTACTTTTTGGCTTAATTTTTCTCCCTAAAGCCCCAA
CCCTTGGGCNTTTTTTT

Sequence 1460

ATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGGCAGGTACTCAGAAATCCTTCCCCGAATT
TACAGCACAGGCAGGATGACCTAAGAGGCAGTTTACTTCCCTGAGACCCACAGTTGGGCT

TABLE 1

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GTTCTGGAAACACATCTGTGAATCATAGCCAATTGCCACAGAGAAAACAGAACCAAGCCT
CCGGTGAGGCCACTCCACCCCAGAGAAGTCTGCAGAATTCCAAGGACTCGGATTGGATGT
TCAGAATTCAGCAACTGGAAAGTCCTTAAAAACAAACAGGCCAAACCAATCAATATTGC
TGTTTCTAGATGTCCCTTCTGTGGTTGAGCTAGTTTTACAGAGATAATATATTAAGACA
AGGAGGTGGGGGTGTTATATGATCAATGATAGCCATTTTGAAAGAGAGGGAGGAGTACTT
TTTTTTTTTTTTTTTTTCCAAGCACGTGCCACTTTATTGAATGACACTGTAGACAGGT
GTGTGGGTATAAAGTCTGTATCTAGGGGCAGGACCAAGGGGGCAGGG

Sequence 1461

AGGTACGCGGGGCTCAAGAATAAGCTGAAATATGGCCAGACTATCAGGCCCATTTGTCTC
CCCTGCACCGAGGGAACAACCTCGAGCCTTTGAGGGCTTCTCCAANCCTACCCACTTTGG
CCCAGTCANACCAAAAAAGGGGAAAGNAGGCCTGGCTTCCCCTTGNCAACAAGGGNATTA
ATTCCAAAAAGNCCTTCTGGTTTTTGGNTGGTNCCTTGAAGGGNAAGGGNAGGAAAAA
AAAAGNCCTTGNAACCTTCGGGGAAGGGGNAGGGTTCCTTAACAATTCAAAGGAAATTG
GGGGGGGAATAAAAGGAAAAANGGGGCCAAGNCCTTGGTTTGAAGGAAGGNAGGTATG
GCTTCAAATTAATGGCCCCCAANGGCTTAATTGAACCAAAAAAGGTNCAAAAGGGGAA
CAATTCTCAANAAGGGGTGGGGTCCACCCCCCNTTCGGGGTTTTCCCCTTTTGGTT
ACCCCTTGCCCCCGGNNNCCGGGCCCGCCTTCCTAAGAAANCNTAGGGTTGGGGNANT
NCCCCCCCCNGGG

Sequence 1462

GCGGGCAGGTACATGGATGGGAGCAGCTTACCAACCCCTGCAAAGTGACTCTGAAGAAG
ACGACAAGCCCTGCTCCAGTCACACCCGGNAAGNCTGACTGNNTNCCACCGCNACAGNCT
GAAAGGCATTGAGGGNAAAACCTCAATTCNTCGGGGNACCTAAATTTTTCCCCTTTAA
AANATTTTTAAGTAACCTTTGGCCAACCAAGGTAAAGGGGGAACCTTTCCAAAACNTNG
AACCCTTTCCCTCCAAGNATTTGNAAGGAAACNTGTTNTTCCAGGTTAATTAATTAC
CNATTTCCAAAAGGTTCCAACCTTTNGGAANGGGTTAAGGGGGAAACCAANAAAAATT
TTGGCTTAACCAAGGTTCCCTNAATTAATAATTTTTTAAANGGGGGTTTTTTTTTTTA
TATAAAAAAGGNGNTGGTNTNANNCCCCCTTTTNGGNGGTCCCCCTTTTTTTTTTTNAA
GAAAAANCCNTAAGGGGNGGGGAAATCCCCCCCCCCCCGGGGGNNCCNTTGGGCCAA
NGGGAAAAATTTTCCNGNATTTAATTTCCAA

Sequence 1463

AGGTACGCGGGGAGGCATTGAGGCAGCCAGCGCAGGGGCTTCTGCTGAGGGGGCAGGCGG
AGCTTGAGGAAACCCGCAGATAAGTTTTTTCTCTTTGNAAAGANTCCNCNTTTAAAA
TAACCAAAACCTTACCTTTAAAAAAAATTAATTANGTTCAAAATTAANGGGNTTTTA
ACCTTNAAGGNAATTAATTTTTNGGCCTTTTTAAANNCCGGGTTTTTAAAAAGNGTTT
TTTTTTTTTAAACCCGGTTAAAAATTTTTTTTTTAAAAATTAAGGCCCTTTTTTAA
AGNNAATTTTTTTTTTAAAGGNGANGGAAAAAAATTTTTTTTTTGGNANAAGTGAAA
ANCTTTTTTNTTAAAAAATNTAAANNNTNTTAGTCCCTNNTTTTTNTAANAGGNGGG
NAAATGGGNGGGGTNNNANANAAGGAATTTAAAAAANTGGGNTNTTTTTNTTAAAAAA
AAACCAATTTTATCCCTTGNTNAGGGGTTTTTGGGNAAGNNAATATGGAAAAANAAN
CCTTTTNTCT

Sequence 1464

TTTGAGAAGCCAGCGCTCACCCACCCGGGGTCTCTGTGCATTGACCTTTGGGTGCTGACT
TGGAGAAAAGCACAAACACGACCAGTCCCATCCTGGGCTCCCGNNGCCGNCCTTTCTTT
CCTAATNCTTACCGCCATTTTGGTATTCCGGACCTGGCCAATTTTAGGTTTNGGGACCTT
AAAAGNAATTGGAATTGGAACCTTCCAAGTTTTTAAAAAAGGGGGAAGGGGAAGNAACC
NAAANATTNNCCTTNGAACCTTGGTTCCTTAAAGNCCAAANGGAAATTGGGGCCCCC
AANAGNCCCTTGNNNGCCAAAAAGGNAAAAAAGNNCCNAACCCAACCTTTGGNN
CNAATTTAACCCNAATTTAAGGGGGGAAATTACCAAGGAAAAGGGGGNCCAAGGAAGG
CCTTTCTTGGGCCCTTGNGCCGGGGGGAATTCCTTNGGCCAAAAACCCAATTTTTTA
ACCCANTTTTTTTGGGTTTTTTTTTGGGCCCTTTGGCCCAANAAAAACCTTAACCCC
CCCCGGGCGGGTTNACCCCTTCGGGGGGGCCCGGCCTTCCTTAAGGNAAAACCTT

TABLE 1
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AAAGGNNTTGGGGGGNAATTTCCCCCCCCCCCCGG

Sequence 1465

AGGTACTTTATTTTTCTTTTTTTTTTTTTGTGGATGGGGACTTGTGAATTTTTCTAAA
GGTGCTATTTAACATGGGAGGAGAGCCGTGTGCCGNATCCAGCCCAAGCCNCCCGNTT
CACTTTTTCNCACACNCTTTNTTTTTCAACCCCTTGGCACCTTCTGGGGCNTTTACTTTAA
AAGNGGNCCTTTNTTTGGNCATTACATTAGCAGCGGAAAAACANCCTTTTANTTNCCTT
CCCCNTTATTGGNGAANANAACCTCCCATTTTTNTTTNTTCAAANAAGGAGCATTNGNC
AAANANCTNCCAAATNTNCCCTTNNACCACNGNGGGNCNNTANNCCACNNTNCTANCTT
NAGGNGNNGCCATTTGGGTTNCNCCCTTGNCCNGGAANTTCTNCCCTTTTCCNTTNGN
TTTTNTCCCNCGGGNGTTTTTTCCAAGNGAAGNGANCCCANAAATCCTTTTTTNNNN
CNCNAANAAAAANGTTNAANCCNAAAAAAGNGCCCAAGAGTTTTTTTTTTTTCCCC
CCCCC

Sequence 1466

AGGTACACTGAAACATAAATCCGCAAGTCACCACACATACAACACCCGGCAGGAAAAAAC
AAAAACAGCAAGTTTACATGATCCCTGTAACAGGCCATGGNNCTNCAANNCTTCAGGAAT
GCCTTNCCNTCNCATTCTGGCCCAAAGNTGGTTGTTTNCNTGGGAATNACCAGGNAGGCC
ACCAATTCGGTGGGGCCTNTCCTGGGGGGNGGTTCAACCAACCTNCAAGNCTTTAAGGG
CTTGGTTGGGGGTCCCCACCANGAGGCCACCTTNCATTTCTTGGGCTTGGGGGACCTAA
TTGNGGNTGGGGTTGGGNTTGGGACCTTCCTTAACCTTCCAAAAGTAAGNCAANAAGCNT
GTTTAACCCAAGCCAACAATTTNCAAAAAACCAAGGTTGGTAATTTGGNAAACCANTCCT
TTTTTNAAAAAATNATTCAAAAAAGTTNGAAGGAAAAANCCANAGGAAANGGGNCAAC
CATTAAANTTAAATNGGTTTAAATCCAAGNAAAAAAG

Sequence 1467

CCGGGCAGGTACTTTTTTTTTTTTTTTTATAACTGAAGCTTTATCTGGAGTGGGGGAA
TGGGGGTGTGGTCAGTTGGGGCACCCAAAGACAAGCCATGCCNCCNCCCGGAAANGCC
GCNCAGAGGGTTCCCTTGGGCAATNTGGTATNTACTGGGGTATCCTTCTTNTGCGGTTNC
TTTCGGGNCAATTTTTCCGATNNCCACCTTTNNCCTTACAAAGGGNCCCCAANNNTTGN
CTTTCTCCANCNCCCCAAAAGGTTNNGTGCCCTTTTNNNCCCGNAANNNGGAATTGTT
NAAGNCCTTNGNAAGNGGTTATTGGGGAGGACCATTTTCTTTCTTTNCCCCCCCCCA
AGGAAAAAATTTTCCNGTGTTNAAGNGGTAATGNNAAGTAACCTCCCCCAACCA
AATTGGAAAGGGGNTTAAAGAANTGGNTTTTTTACCTTTTTTCTTACCNCCTTTCCNC
CAAANNCCTTTTTCAAAGGGGGGGGCCCTTTTTCTTTCTTTAANCCCAAACCTTT
TTNGGAAATTTGGGGGGGGGGGCCCTTGGGAATTTGGAAAAANCCGGNTTNGGCCCGN
CCTTTGGGTCTTTGGTTTTCCCCAAAAAACCCTTNGGGCCAAACCCCCCT

Sequence 1468

AGGTACGCGGGTGGTGAAAAAAGAAGTAGAAATCGTGGCCACCTCCCTCTTGGGGTCGT
CGCCCTCGAGATGATTATCCGTAGGAGGGAGTTCCCTCACCTCCNCCGCCACAATCTTCC
CAAAGAAAGGGGAGAAAGTCTTTCTTCTCGGCAGNCNCGNGTAGTCNAGNGGTTCC
CCTTTTTCTTAGGNAGGCATTTAAGGGGNAAGTAAGGAAGGNAGGAAGNAATTCCGG
CCTTGGTTCNTTCGGGGGNAGTAAGNAAAAATTCCACCANAGTCCCGGTCCCGGAATTC
CCTTTTCNTTCTTAAGGGGGTTCCTTCCGGTTAAGGTTCCGNAATTCCTTAAGGGGTTNC
AAAATGGAAAAAGNGAAAAATTAAGGAAAGNAACCAAGGTTTTTGGCCAAAGGAAGAA
AGGTTGGGGTGGTTAACCCTTGGCCCCCGGGGGGCNGGGCCCCGGCTTCTTAAGAA
AACCTTAGGGTNGGAAATCCCCCCCCCGGGGGGCCCTTGGC

Sequence 1469

CCGGGCAGGTACTTTTTTTTTTTTTTTTATAACTGAAGCTTTATCTGGAGTGGGGGAA
TGGGGGTGTGGTCAGTTGGGGCACCCAAAGNACAACCTATGCCTCCTNCNNGAAAGGNC
GGCCAAAGGGTCCCTGGGCCAATTTGGTTTTCTTGGGATTTCTTCTTTTGGNTACATCG
GGNCAATTTCCGNTACACCTNCNCTNCNAAGGGNCCCNAGGTNTGGCTTTCNCCNCCG
GCAANAGNTNGTNCCTTTTACCCGGAATGGAATGGTTAAGACCTTGNAAGNGGATTTT
GGGNGGACCTTTTNCATTANCTTACCCCCCAANGTAAAAAATTTCCGGTNNTAAGGG

TABLE 1
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GNAAGAAAAGGAACCCNCCCAACAATTGAAGGNGGTAAAGGTTGGGTATTTTCCTTTTCC
TTTCCCCCTTTCCCAAAGGCCNTTTTTCNAAGGGGGGGGCCTTTTNTTTTCATTAACC
AACCTTTTTGGNAATTGGGGGGGGGNCCTTGGAATTGGGAAAAAACCGGTTTNCCTGG
CCTTTNTCTTTGNGTTCNCCAAAAACCCCTTGGGCCAAACC

Sequence 1470

AGGTACGCGGGTGGTGAAAAAGAAGTAGAAATCGTGGCCACCTCCCTCTTGGGGTCGT
CGCCCTCGAGATGATTATCCGTAGGAGGGAGTNCCTCCACCTCCNCCNCCNCAATTCTTC
CCAAAGAAAGNGAAGAAAGNCCTTCTTCTTCGGCAAGNCCNGNAGGCCAGGGGNTGC
NCCCTTTTTTCNTAAGGAAGTATTNAGGGGGAGTAAANGTAAGTAAGGAAGGAATTCCGG
CCTTGGTTCNTTCCGNGGGTAGGAAGGAAAAAATTCCAACCAAGGCCCGNTCCCCGGA
ATNCCCTTTTCTTCTTTCNAGGGGTTCNTNCGGGTAGNTTCCGGAATTCCTTAAGGGGT
TCAAAATGGAAAAAGGGAAAAATTAGGGAAAGTAACCAGGTTTTTTGGCAAAGGAAGGAA
AGGTTGGGGGTGGNTAACCCCTGGCCCCCGNGGGCGGGGCCCGGCTTCCTAAGAAACC
TTAGGGTGGGGAATCCCCCCCCGNGGGGCCTTGCCAAGGGGAAANTTTTCCGNAATTAAT
TCCAAAAGG

Sequence 1471

AGGTACAAACGAGTCCTGGCCTTGTCTGTGGAGACGGATTACACCTTCCCACTTGCTGAA
AAGGTCAAGGCCTTCTTGGCTGATCCATCTGCCTTTGTGGGCTGCNTGCCCCCTGGTGGG
CTNGCCTGNCCCACCCAACCAGGCNTGGCTTCCCTGCCTTGGCCTTGGCCTTGGCAAGGC
TCCCCCAGGCCTTAAAGGGGTTTTGGNAAAGGNCNCCAAAGGGGAAAAGGAAGGTTCCGG
GAAGGGGAANTTCCNGGGAACCGAAGGGNATTAATGGGGGGGAATTTTTGGGGTCTTNC
TTTTTTGGACNTAAAAATTCNAACCCCAAAAAAAAAAAAAAGGNCCNAAANCCCCCAAAA
ANCTTTTTTAAGNCCCCAAGGTTTTTTTTTAATTTTTTGCCAAAAAAAAAACCAAAAGGG
GGGAAAAAANTTAAAAAAGGGGGGCCCTTTTAAACCTTTTTTCCAANTTANANTAT
AANAATAAAATANNANAANNNNNNTNNGNGGGTTTAAACCCCTTTGGGCCCCCCCGGGG
GGGNCCCGGGGGCCCCCGGGNTTCTTAAAGGAAAAACCCTTAANGGGTNGGGGGGAA
TTCCCCCCCCCCCCCGGGGGGGGCCCTTGGGCCCAAAGGGGAAAAAA

Sequence 1472

AGGTACAGAGTCTTTTCTTCTCCACCCCTAGGGGGAAAACTGCTTTGTGCTTTGGG
AAGTTGTCTCTGAAACCCGGGGACAGAGGACCGCAGGACAGANCTACCGNCGGGGAGNCN
CGNGGNAGGGAATGGGGGCATGCAAGTCATGNTGAGAAGNGGAGNGTGATCTTACAAGCA
NNGGAAGNACGTATGNGGTCCCGNGTAAGNAAGTCCANGTAAGNGNCCCCTTGAAGNAA
AGTCCCAAGTANCGACCAAGTNTTGNAGTAAGTAGGGTGNTGGGNAAATAGGTTGNANC
CCATNTCCGGGGGTCTTGGGGGGNCCTTGGGTAAGNCCNCGNCCAACCAACTGCTTCT
CCTNCCCCAATGGTTTAAAAAATTAGGCCACCCCTTTTTTAAGGAAAAAAAAAATTTTTC
CAACCAAAAGGGTTCNCCNCCCAATCCCAACCATANAAAAAANATAGATANACACAN
AAAGGGGAAAAAGGTTACCCCTT

Sequence 1473

AGGTACTGGTGTCCGGAATCCTACCCACTGTGATGACAGTGCCTGATAGTTTCTTCTG
CCTTTCTATCCCAAAACGATTGGTCAGTTTACCCAAGGTTTGGCAAATGGCCAGCCTTNA
GNAATCTTCCCAAGGGGAANCAATNCTTCTTTCTTAGGTTAAGNTTTGGCCCCCTTAA
GNCCCAATCTTTTNGGTTAAGGTTTTGGNAATNTTGAACCTNTNTTTNTNTNTNT
NTNTNTTGTGGCCTTTTCCCAAGGAAAAAGGCCTTCTTAATGNCCTTTCAATTAATGGG
AACCTTNGGCCANTAACCCCAAAATTTTTTTTTTTTNGGGTTTTNCAATTTCTTGGGT
TTTGGGGGTTNCAATGGAATGGGGTTTAAAGGCCAAGAAAGGCCCTTGGANCCCCCTCCCC
NTGGGTTTTAACCAAAATTAAGGAAAAATTGGAAATTCGGGGTTTTTCCCCCTGGGGGG
CCTTAACCAAGGAACCTTTTGAAGGGTTCCTNGGTNTTTTTTTTTTTTTGGGTTTTTT
TTTTAAAAAANCCCTNNTNCCNCCCAATNGGGTGGGGGGGCCNAAAA

Sequence 1474

CGCGGTGGCGGCCCGCCCGGCAGGTACTTTTCTTTTTTTTTTTTTTNGGGATGGGGAC
TTGTGAATTTTTCTAAAGNGCTATTTAACATGGGAGGAGAGCCGTGTTGCCGGCTCCAG

TABLE 1

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CCCAGCCCCGCNTGCTTCACNTTCCACCNCCTTTNTTCTCACCTTGCCTTCTTGGGCT
TTTCTNCAAGGGCCCTNNTGGCCTTCTTCCCCGNACCCCTTTGGTTCTTCNCTTCTGG
AAANAACCCNCTTCNCTNCCAACCAAACCTNNGCAGNCTCCCATTTNNCTTCCCCGGGCT
TCCCCCNTCNCCTTAAGGTTCTTGGTCCCCCTTGGCCGGTTCNCCTTCTTGGTCCCCCG
GGGTTTTTCAAGNAGNAACAAANCNTTNCCTTAAAAANGCCAACAAAAAAGGCCAAGGT
TTTTTTTCCCCCCTTAAAGNNGGNTTGGGGGGGAAGGGGGAAAAAGNCCAAAAAAA
GGAACCTTCTTGGTACCCCTTTTNGGGGCCCGGGCTTCTTAAAGAAAACCTAAGGGTG
GGGGAAATNCCCCCCCCCG

Sequence 1475

AGGTACTTCAATCCTGAATTAATCTTTAAACACTTTCAAATATGGAGATTAATCACCAAC
TTCTTATTTTTTGGCCAGTTGGATTCAATTTTTTATTTAACCATGGANCTCTTTCNTAT
TATTCGGTTACCTNGTNCGAAATGGCCTAGGAAAGNAAAGGGCCTTCTTTTNCNGGAG
GGGTTNCGGGGAACCAAGNCNAGGAACCTTTTTGGTNAATTTTTTAATTGGTTTCCCTT
TTTTTGGNTGGGGAATTTCTTTAAATNGAACCCCAAGTTCGGGAACAAGGGAATTG
NAGGCCCAAAGGTTCAAAAAAGGGGAAAACNTTTTTNTNAAACCCCCCAAGGGTATT
GGCAAGTTTGGGACCACCATTAATTAATTTTTTTTTCTTTGGGAAAAGGGAATGGT
TAATTTTTTCCCCCAAATTCAAAANCCCTGGGGTGGGGAATTAAGGGAAAAATTT
TCNTGGAAAAACCAACCAATTCCTAATTTTTTGGAAAAAGGCCTTAATTTTTTTTT
TGGAATAACCAACCC

Sequence 1476

AGGTACAAAATTTTATTAAGGTCTTTAGAGAGCAACATCCAGACTCCAGAATACAGCTG
NGNAGGAGACCCTGTTATGCTGTGGGACTGGGCTGGGGCATTGGAAAAGCNCCTCCNTC
TGGGCCTTCCCAACNCCCTTANTTGTCTTGNAAAGAAATGGNGGGGNTTGNTTGGG
NGNCNATGATNATTANCTTCAATCTTTTTTAGGGGGGATTTTACCACCAAAAAATTG
NCCTTTCNAAACCGTTGNGGNNTTCCATGTGNCCAAGGGNGGNGGCCTTTCTTTTTA
NGGGGNGCCCCAAANTTCNTTTNAAACCCCAANTANTTTGNTTTTCCGGNNAANGT
CCCGGTGTTTNTACCCGAAAATTCCTCCGNGGGGNGNANCAAANGNGNNTTNCCTTGG
TTGNGTATTNCCCCAACTAATTTAAAAAATAA

Sequence 1477

CGGCCGCCCGGCAGGTACTTTTTTTTTTTTTTTTTTGGATGAAATGCCAGGGTGA
AAGGGATAGCCAAATAGGCTAAAGCACAAAGTCCCACTCTAGGTTAATTTCCGCAGGACNN
GCCCCAAATAAAAGGGTCCACCNAGACCANNTTACCCAATNCAACAACCATTTCCCGGNT
TTCGGGG

Sequence 1478

AGGTACCTTAACCTGAGTTACAGGGCTGGTCCCTCTCTTTTCATTTTTATCCCAGTAGG
TGAGACCGTCCCTGCTGTGTTCCGGTGGCTGTGGAGTTGATGGCATCTTGTCTCCAGGTGA
CACCTGCATGCTGGCCAGCTGAGCGGCATAGAGCTGCTGCAAACAGGGAAGACAAACAT
TGATCTCTTTAAATGCAGCTGAAATTGAGTTTCAAAAGAAAAAACTTACCATATTGTTAG
ATTTCTCAGACAGCCTTGTAATTTCTTTTCACTATTTTTAAAAAAGGGAGCTAAGAGAA
GGCAAATAATAAAACAGAAAGAAAAAGGACAGGTATGGGAGCCATAGTTCTGTTTCTGGT
CCTTCTAGCAACAACCTTATGATCCTGGACAAAGGATTTGATCTCTTAGAATTCAGTT
TTTTTTTTA

Sequence 1479

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAACACCTGCTAAAGACATAGC
TTAATAAATATTTGTTGAATGTTGTTGAATGAAGAGCATTTTCTGCTCATAAATTTCTC
ATTACTTAACGAATGTAGAATAAATTCCTTACTCTGGCAGACTGGAATATGTAGTTACAG
TTTATTCTAGAAATTTTGCATTCCCCCTTCTTCTGTTTCACTTGGAGAAGTTCTTTCCAT
CCTAAGTGACCCAGGTGAGTCCAGTGTCTGCTGATTTCACTGCAGGGCAGGCATGTGAT
CCAGGCTGGCCACAGTGGTCAGTGTGGACAACCTGACCTTGTTCATCTGTGGAGTCTAAC
AAAAGTAGTGCCCCCTTATCCTCGGTGGTTATGTTCCAAGATGCCCAAGTGGATGCCTGA
AACCGTGGATAGTACCTGCCCGGGCGGNCGNTCTAAACTAAGTG

TABLE 1
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Sequence 1480

CCGCGGTGGCGGCCGAGGTAAGCATTGATCAAAGAAATTTCAAATTACCGATCAATT
GGGTGGGGAGAGGAATTTTCATTGTCCAAGCACCCCTCAGGGAACAGAAGTCAAAGCAATA
ACATATTCAGCAATGCAGGTCTATAATGAAGAGAACCCGGAAGTTTTGTGATCATTGAC
ATTTAAGACACCAAAAAATAAAAGACTCCTACGAAGAACTGTTTTGTTTTCTCTTCCT
TTTGAGAAGACACTATGAATTAATTTCTACAGCTTTTTTTTGATATATGAAATTTGTAG
AACAGAAATATTTTAGTTAAAGTGTGACTTTTCAGAAAGGGAAAATCAGGGCACAGCCTTG
GTCTGTGTTCCCCAAATATTCACACTTTAAAGAATTCTTAAC

Sequence 1481

ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGATTGTCTTTATGCATTAAATTCAT
GCTTTTACATACTTGTTTCTTTTCATTTGTCCTTCCAAATCATTATTTAGGAATA
TAGAGAAAAGGGTTGGCCAGGTGCAGTGACTCACACCTGCAATCCAGCACTTTGGGAGG
TCGAGGTGGGTGGATCACTTGAGGCTAGGATTTTGAGACCAGCCTGACCAACATGGAGAA
ACCCCATCTCTACTGAAAATACAAAATTACCCGGGTGTGGTGGCGCATGCCTGTAACTC
AGCTACTCGGGAGGCTGAGGCAAAAGAATTGCTTGAATCTGGGAGGCGGAGGTTGTGGTG
AGCCAAGATCGTGCCATTGCACTCCAGCCTGGGCAACAAGAGCGAAACTCCGTCTCAAAA
AAATTAATAAATAAGGCTTATGTGCAGTTATTCTCAATGAGCTAAAAGCTTCCTGAGG
CTAGAAATCTTGTCATTTTTGGCTGGGA

Sequence 1482

CCGCGGTGGCGGCCGCGGCCGAGGTAAGTATCTATTTGGCCTTGGAAGTACTCTCTAAG
TCAGGGCTCTTTTCTTNAACTTTGGTGTGAGACTCCGCTGGAGAGCCGGTTAGAAAAAC
ACAAGTCTCGGGCCCCACCCGCGAGAGCCCTCATTCTCTAGTTCTGGGTTGGGGCCAG
GAGTCTGCTTTTCTAGCAAGCGCCAGATGTCAGTGATGCTTACAGCTCTCANACCACAG
TTGGAGCAGNGATTTTTAAAAGTCTTTTCATTTGTAAAGAGTNGTTCTCCATGCTCCAAA
TGACTGNGACGACTGAGAAAATGCATGTATGTAAAGTCTGCANCTGGTGACATTGTACAC
ACTNAGCAAATGGCCTTNGGTGTTACTGTNANTTTATTTTTACTAATTATTTNTNNCACC
NACAAATTNGGANCTGCTNCAATCGGTNGGAATTTGGAATTTGGG

Sequence 1483

GCTGCCATCAGCTCCCTAGGAGCTCTCCCTCCAGGAAGGGAATGTGTCCACCGTCAGACA
CTCAGACCCAGCATGTGGGGACAGAGGCTGATGGCCTGTCTGGCCATTCTCTCAGTTCC
TCTCCTCACTAGCTTGTGTCCTTGTGCAAGTCACTTACCCTCTCTGAGGTTGAGTTCCCT
CCTCTTTGAAGTGGGTTAATAATAAGTACCTGCCG

Sequence 1484

CCGCGGTGGCGGCCGCGGCCGAGGTAAGTATCTATTTGGCCTTGGAAGTACTCTCTAAG
TGTGAAGCCGATTTAGTGAAGTGTCTGTGCAGAAAAGAGTCCAGGGCTGTGAGTTAAT
TCTTCCGGCCACTGGAGTTAGGGTTTGAAGTCTGCAGCTGCCTATTGCACTTGTGAAAA
GGTTTGTATGTTCACTGCTGGCTGGCTCAGAGTTGGGAGTGAATCCTCCAAGGGATA
AGCTTGGAGAACTTTCTGAACAGTCAATCTGTAAAGGTGTCTGCAATCCAAGGCCAATG
GACTAGATTCTGAAGGCTCTCGGTGGACCCACTGTTCTCTCTGTTTATTAAGCTTTTG
AAGGAGAGAGATGAGGGCAGGACATGTGACAACGGTGCTTTTCTTATGCTTATATCGCT
CTCCAACAGCATCCTT

Sequence 1485

AGGTACATGCAAGTTGCATGATTATAATGACGTGATCCTGGGATTTAAGTTGATTATGAC
AGGAACAGAAGGAAGTGGAGATTAGGGACAATGAAAAGGTGGTAGTGAAAGGAGTGTTG
GAGTTAAGTTACTAGATGTCTGGAAGACAGACTGTGGTGGTCAGATAATGAGATAGATTA
TGGAGGGGTTACAGTTTTTGGTAATAACGAGAGAGATCTAAGGTATGACTGAGAGTGAAT
GGATGAGAATAGCAGAGAACAAAGGTCAGTGGAAGTACTCTTCAAAGAACCTATAGTCA
GGGTGTTGAAAGATTAAAAATTGCTAAGAATTAAATCAGGAAGTAGTGCTGCGGGAAATG
AAATGAGCAGTGAAGTAACTTACTGAGAAATGAGAGGGGATGACCCAAGGGTTGTAGA
TTTTGTAGATGATAGCA

Sequence 1486

TABLE 1

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AGGTACATGACATCCGACGAAATGAGACGCCACCTAATTGATTTCCGGGAGTCCGCACCA
GGGGCCCTCAGGGAAGAGACCCCGCAAAGATCCTGGGAGACCAAGGTGGGGACCCTGGT
AGAAGAGAGAGTT CAGGGGAGTCTCTCTTCATTGCCCTTCTGCTAACCCAAGCATT AATT
TGCTAAGTATTTACCAGGGGAGTGGGAAAAAGAGTTGAGCGGGATTCTCTTAGGCTATGA
GAGAGTCAGGCAGCCCCCAAGATAAAATAATGAACTAGAAAATCTGGAACCTTACTTCTC
TGGAATNTTACCTATCTGGCACCGTGGGAAGAAAGAAAAAAGGCTACTGAGTACCTGCC
CG

Sequence 1487

GCGGTGGCGGCCGAGGTACTGACCTCTGCCAGTCAGCTGCGTAACTCCAGGCCCTAGGGT
GCCCCGTCTGTCCAGCCAGGGATTGCATGGATATGCTGTGATCTCCCTTTTGGTTCTGAT
TGAGTTGGACCTTGTTGGGAGGAGAAACATAGATGTTGATACATGAACACATATGTTGGAG
AGAGAAAGTTTTATCTTGGCATAGGACTTTTTAAACACAAGGTAATTTTTAATCAGTTTT
GGGACCAAAAAACACTCAATATGGGAAAAATCCAAATTCTGCCAAAATGTCTAAAGAGGT
TTATTCTGAACCAAGTATAAGTGAAGTGTGGTCTAGGTTACACAATTTCAAGAGATCCTGAT
AAAGCGTGCATGAGAGAGTTGGGCTACAGCTTGGTTTTACACATTT CAGGGAGACAGGAA
TTGTANGGTAAAATTATGGCACAGGACTTTTAAAATGAAGCTGTGAAAGTTTACAGTCCA
TAGAGAATAAAAAATCTAGAAGTTT

Sequence 1488

CCGCGGTGGCGGCCGAGGTACTTGACACGACATATGGTAAATGAATAAGACAAAGGCTCT
GATGGCTTCTCACAGCCCTGTGGATCAAACCTCAGATTCTTTTCTAGAACCCCAAGGCCCT
GTCAGTCTCACTAGCCTCTCTCCAGACACAACAGCCTTTTTCTACCTTTCCAACATCCCA
AGTTCCTTTTCTCTTACAGGACTACATACACTCTCTCTTCTGCCAGAAACCATGTTCTAC
CAGCTAATTTCCACTCAACTTTTAAGTCTCANCTGAAATGTTACTTCCAAAGAGAGGCCT
CCTCTGAACCCCAAGCCTGGGGTTCACAGCACCTGTCTCCATAACTACATAATAATCTCT
CTGATGTTTAGGCTGGGCATGGTGGCTCACGCCTGTAATGCCAGCACTTTGGGAGGCCAA
GGCG

Sequence 1489

GGGCGAATTGGAGCTCCCCGNGGTGGCGGCCGGGCAGGTACCCAGAGTTGCGAGGAGTTT
TTTAACTGATTTAGCCAGGTGGCAANCATNAGTGAATGGATGAAGAAAGGCCCTTAGAA
TGGCAAGATTACATTTACAAAGAGGTCCGAGTGACAGCCAGTGAGAAGAATGAGTATAAA
GGATGGGTTTTTAACTACAGACCCAGTCTCTGCCAATATTGTCCTTGTAACCTCCTTGAA
GATGGCAGCATGTCTGTGACCGGAATTATGGGACATGCTGTGCAGACTGTTGAAACTATG
A

Sequence 1490

GATNAGCTCGATATNGAATNNCNCANNCNNGGGGANNCANNNGNACAAGAGCGGANNCC
NNCGCAGAGGAGCTNCAANTTTACACACTGTTTAAATGAGGGAATANGCNGCAGCGCTTG
GATGTAACCTGAAGAAGACAGTNNGAGCNCNAAGGAGGGACAACCACGACCTATGAGGACA
CCATGCCAGAGAGGCCTGGACCCACGCTAGGCTCAGTGCCCTGTTATACTCTTGGGACCC
AGCGCTTTCCTTCTCCATCACGTGGCATACTTGGCATTATTTGTTGNTTAAAATATTGCC
CTTAGTTTTNACCTTTCNTAAGGAGACACAAGGNNGACCTTTGNGACATTAAACAGTTGCC
CCAAGTNGGGGNANANAAANAATTTTTGGGGGNGNAAAAANCTTTTGGCTTTTNNAAA
AAATTTTTTTTTNAAANTTT

Sequence 1491

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGGTGACCCTTGCTGGT
GCTTTTATGTTTTGTGCCGAGGCAATTAGACTTTGTGCTGAATNTGTTTGTGCTGCCACC
TCAGGGAAGGGGTGGAATGTGCAGCGTGGTTTCCATTTGACATTGTTTTCCCTGAGAGAT
GGGAGGGCTGAACGTTACCTCTTGACAAGTCTTAGTGGACAGAGGGGGCCCGGATACCCAA
GCGCCTTAGTTCTTAGGGCTGGGTATTAGTTCATTTTCACTGCTGATAAAGACATACT
CGATACTGGGAAGAAAAAGAGGTTTAATTGGACTCCCACATGGCT

Sequence 1492

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTACCCTTTACTTTTTCCC

TABLE 1

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CAAGACCATCTCAGGGTGGAGCATTCTGTCTAAGAGAAGAAAGATAAGGAGGCTCCCACC
CACCTCTCCCAAGAGCAGACATTAAACATCTTTGTGCTTTGAAGAGAGTGAATTTTGGAT
AGTCTTGTGATTCTCAGACTAACTCCAGAATTATACTTTAACCCCTTCCAGATATGGTC
CGCCTTTGGCATTGTGTGTACCTGTGATGGGGCGTGTGGTTTCCGGTTGTCTCACCTTTA
ATTGTCAACCTCCAGTGTTGACTCTAGAAATATGAGGAAAGCTTTTCAGTTTTTAAAT
GCCATTTAAATTTAGTCTATTAATAAACAAACCTAGAGGTCTTGGTGCAGTTGATTTCAGA
GTTTATTAATTTAAGTGGTCCCAAAAGTATTACATCTTTATATTCTGGAAGAAAAGAAC
TGTGAACAAATTAGA

Sequence 1493

CTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCANGGTAAGTGTGGAGGT
CCCAGGAGTGCTGGTGTGAGGACAAAGTTCCGATGGGTGAAACCATTGACATAGAGACT
GCCTCTGTCCAGGAGGNANGGGCCAGCTCGATGATGCCATGGGTGAGTTTGTCTAGCTC
CCAGTATAGCTGCTCTGTCCAGTCCAGGGTTAGAGGGTCAAGGCGGTGAGTGCAGAT
GGTGTCCACGCCGGTGGCTGNCCACGTTTTTCAGGCCTGAGCAAGGTCAGTNTGCAGCC
AGAGTACCTT

Sequence 1494

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTGAATTTGTAATGA
GTCTGATGGTATATTTCAATTTTTGCTTTGAGGGACTGGCTGCTACATTGCAGAATATC
TTATATCCCTGACTGCTTTCCACTAAATGTCAGTGGTGACCCCAATCCAATTATTATGAC
AACTGAACATGCTTATGCATCCCTCATGCCTTTATTTTTATTTTGGGAAATCTTTCAGC
TTCAGTTTTTGTGATATTATGTGATTCTTTGTTCTGCAATTCAAATTTCTGGGAGCCA
AACAGTCTCCTTGGTTCAGATTACTGTTTTTGAAGCTTCTCGCTTCAGATTCTGT
CATAAGATTATGGCTTAACCTATGGTTGTCCTTTGATTTGGTGCCATATGAAATAAAACA
TTATTT

Sequence 1495

GAGCTCCCGCGGTGGCGGCCGCCCGGGCAAGGTACGCGGGGAGTTTCACGCGCGTATGC
TTTGCCCGCCATGGCCGAGTCAAGNGCCTTTGGAGTTCCATGCCAAGCGGTCTTGGCG
CCCCGAGGAGGCAGTAGAAGATCCGGACGAGGAGGATGAGGATAATACTAGTGAAGCCGA
GAATGGGTTCTCCCTGGAGGAAAGTGTTACGGCTCGGAGGCACCAAGCAAGGATACCTTA
TGCTGGCTACTTTGGATGAGAATGAGGGAAGTGATAGATGGAGGGCAAAAAAAGGAGCAA
TCCGATTGACCTTTNACCAAGGGGGANTTTTGAAGCTTTTTTTTTTAAAAATTTTTNTT
TTTNGGNGAAATTTTTNAAAAACTTTTTTTNTTTNAAANNANATTACCCCCCTTTAA
AAAAAAAATTTNCCCCCAAAAAAAAANGGGGNAANANCCCCCAAAAAANAAAAAN
ATTAAAAAAACCCCCCAAAANGNTTCAAGGGGCCCTTTTTTTTTTTTNGGGGNAAAAAA
AAAAAATTNGGCCCCCNCCNCTTTTTTTGGGAGGAGAGGGGGNCCCCCNCCCCCTTTA
AAAAAAAAGGGCCCCCCCCGGGGGGGGGGGNANTTTTANAAANTTTTTTTTCCCCC
CCCC

Sequence 1496

CGGGCAGGACCATGGGAAATAAGAGCNGGCTNNNGGCATTCTGNGTANGGAGCCTGAGCC
AAACTCTAAAGCTGTCTTTATAAAGGGAGGTCATGTGATGGCCAGAAATTGCCTTTGCTT
CATGGTGCATTTGGTGGGGAGTCAGGTGTGGGGTGTGGGTTTACATCATCCCATTTTC
TTTTNNGNNTTCAGACCTGCAATGCTTCTTTTGAACCCGAGACCGTCTGCGCTCCCACC
TGGCCTGTGATGAAGACAAGGTGCCCTGCCAGGTGTGTGGGAAGTACCT

Sequence 1497

AGGTACTTTTNGAAGTAAGTGGACATGNNGGAGGNNAGGGGAANGGAAGTATTGNTATGG
ACTGAACTGTGCCCCAAAATTCATATGTNGAAGCCNTGAGCTCTGACATGATTGNATNT
GAAGTCCTAAAGCCAGGAATGAGGAAGGCTGTGAATGTNCATTGTTCCATGCAAGAATGA
CTCTGGNGNGGGCTATTTAGAGATCATGAGGGATACTGCCCCAGTTTCCACAGGCCAGAT
GGNCTCCAACAAAAGCCACGGGGAGTCACCCCTGCCTGGCAGATCTATCGGGTCAGGAC
CACCGCCCAGGGGGTCTGGAGAGGACAGTATAGGACCAAAGAGGAT

Sequence 1498

TABLE 1

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CACCGNGGTGGCGCCCGAGGTAAGCTGGCCAAGCGCTCAGATCGGCAAGGGGCACCAAGTC
TTGATCTGCCCAGTGACAGNCCCACAACCAGGTGAGCGATGAAGGTATCTTCAGTCTCC
CCCGAACGATGAGACACCATGACGCCCAACCATTTGGCCTGGGCCAGCTTGACGCGCTGA
AGAGACTCGGTACCGGAGCCATTCTGGNTTGACTTTTAGCAAGAAGGNANTTNAAGGA
NTTTTTTTTANCGNCTTNGGNAATCCTTTTGGGGGTGGGGCNCNTGGGNGAAAACTCC
CCCCANCCNTNGGATTCTTNCNNGNGGGNNGAAAAATTTTTTGGNNAANTNNCC
ATAANNTTTTTNGTGAANAANGGANTTTTTNANAAAAANCCCCCTGGGGTNTNTNTTTN
NNNAANAATTTTTNTCTTNCNCGGGGGGNCNNTTTTATAAAAAAANGANNANACC
CCCCNCCGTGGNGGAGAAAAATNTTTANATTATTTTTTTTCTCCCCCCCCGGGCT
TGGGGGGGGGGGCCCCCCANCCCTTTTTTTTTTTTTT

Sequence 1499

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCCGGGCAGGTACAGTTAA
TTTGTGTCATCCCATCAGCAATGAAGGTCCCTATCCAGGGTCTGCTTGAGCAGCATT
CATGTTCTTTTGCTGTTTTGTGCTTTGCCGATTTTGGATTTTATTTTACAAAAATTTT
ATTTAAAAAAGCTCGTCACCTTTTGAAATGCCATTGCCGACTTGAATTTTTTGTATGA
AGTCCCTCCTGATTTTGTGTGTGTGTGTGTGTTAAGCAAGCGTTCGGTTGGTATAGN
TTTTTTTGTTTTTTAAATTAATTAAGGTAGCTGCCTCCTGAAAGCCAGCATTAAAGC
CAGAACACCCAGNTTCAAGCAAAAGACCCACCTCTCTGCAGAGGCAAAGTCTACTTCTG
GTACCT

Sequence 1500

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTAAGTTAGTAGAGACGGGGT
TCACCATGTTTGCCAGGCTGGTCTCGAACCCTGGCCTCAAGTGATCCACCGCCGCGAGA
CTCCAGAGTGCTGGGATTCAGGTGTGAGCCACTATGCCCGGCTAATACGTGGATTTT
TAAAGCTTCAGGTTCTGGTTTCAAGATTTCTGGGTCTCATTAAAAATAAGGCACTCA
GAATTGGTCTAATAAAAAATAACGACCATTCTTTCTACTTCAGCTNTTTCACAAATTTT
TTAATGAAAATGACAAGNGAGGNCCTTCAAGTGGGGCATTTCAGGGGANAAAAATAGCG
GGNAGACCTGAAACCTGGGNTAGGNAGTTNTTTTTATTTTTTGAACAAGAAGANNAATT
TTTTCANAGACCCTAAAAAATNTTTTCCAAAAACAAAAGNGNTTTNTTTTTNTTTNG
GGNGGGACCCCTTCTTTTGGGNNTTTTNCCTTCCCCCT

Sequence 1501

CACTACTATAGGGCGAATTGGAGCTCNCGCGGTGGCCGGCCCGCCCGGGCAGGTACGCGG
GGGCCACTGACCACAGCTCTTTCTTCAGGGACAGACATGGCTCAGCGGATGACAACACAG
CTGCTGCTCCTTCTAGTGTGGGTGGCTGTAGTAGGGGAGGCTCAGACAAGGATTGCATGG
GCCAGGACTGAGCTTNTNAATGTNTGCATGACCCCAAGCCCCACANGGAAAACCCCGCC
CCCGNGGACAATTTGTTTTNACCANGTTTCCCCNTTGGNNNNAAAAAATCCTTTTTTT
TTNCCNNCCCCCNCNGGNGNCCCNAAAGGGGNNTTTTCCCCNTTTTTNTANTNNNC
CCCCCCCCCCCCGGGGGNGGGGNGGNCNCCCNCTTTTTNNNAANNANTTTTTTTTTNT
TNAAAAANCCNCTNTTTTTANAANGGGGNTCCCCNNAATNTNGGGGCCNTTATCC
CCNGGGGGNTAAAAANAANTNTTNNCCAAAAAGGGGGGNCCTTCCCCCTTTTNAAAA
NAGGGGGCCCCCCCCGNGGGGGGNGGAANTNATAAAANTTTTTTTTNCNCCCCC

Sequence 1502

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCCGGGCAGGTACATTCCAGCG
CAGTCTGGGCCCCAAAGCAGTTTACCCTTACCTAAGTACCTAAGTCTAATATAGCCT
AAACTCACTGAAAAATAAGCTAAGTTCATTTACCTTTNGTAGCATACAGTAGACTCAG
AGTNTATACTGAAATATAATGGGAGGCTGTTATNAAAAAAACCNNCCCTCNAAAAAAA
AAATNTNNNCCNCTNAAAAAANNNNGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
GGTTTTTTTNTATNTAAAAAATNNGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
TNTNTNTTCCCTNNANTCCGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
NTCTNTNCTANNNCACNCTCCNANACCCGNNNNNGANNNNNAANATNNNTTNAATTAT
NNNNATTTNNAAAAAGNGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
AANTANNATAGTNTCTNNNGNANNNTTNTNTNNNNANATNTNGGNNTNCNCTNTCNTN

TABLE 1

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CNTCTTNTTTATAAAANAAAAAA

Sequence 1503

CCCTCGCGGTGGCGGGCGAGGTGCATCACCTGCTGAGGGACATCCAGGACAAGGTCACC
ACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTG
ACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCCAGC
CTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCC
ACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACA
AGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTCAACATCACCAACCTACCATATTCC
CAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAGGAATATTGAGGAT
GCGCTCAACCAACTCTTCGAAACAGC

Sequence 1504

CCGGGCAGGTACTCTTGACAAAGCCTCCCCAACAAAGGTGAAATCACTCTCGGCTCACCAC
TGGTGGCAGAAATACTCTGGGCCTGTCTGTTCTGAATGGTCAGTTTCACTGTAATCCTCA
GGCCCTTCCAGTCACCCGTTGCCTTGGCAATGTCATCACCAACTTTTTTGGAGACAGAC
CCAGGGGGCCCGATCTTGGGGGCCAGGGCAGAAGTTGGCACCAGCTTTNCCTTCCGGGNN
CCCCTAAGGTTAAANACTTTTNTTTTTTGGGGGNNNAAAANTTTTGGGNNNTTGGGGG
GGGGCCCTTTNTTTTTTAAANNAACCCCNNTTTTNGGGAAAAACCCNAAAGAAAAGTN
CCCCCTTGGGCCCCCCCCCNCCCAAAGGCCGNNAAAAACCCCGGTTTTTTNGNGTT
TTTTAAAAAAAAGGAAANCCCCCGCNCNCGGAAAAANTTTNTNANAANTTTTTTCCCC
CCCCCCCCNCGGGGGGGGGGCCCGGCCNNTTTTTTTTTTTTTTTT

Sequence 1505

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACATGGTGGTAA
ATGCTTAACTCCACCTATATAAAATCAAAACAGGCAAAATGAATCATCAGACTACAGC
TTACCTTTAGGGGGTGTGAGTAGTGACTAACAGGGGTCAAGATGAAGGTTAAGGATGTC
GCCAGGCGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCAGGCGGAT
CACTGAGGTGAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCTGTCTCTACTAA
AAATACAAAAAATTAGCCGGCGTGGNGGTAGGCGTCTGTNGTCCCAGCTACTCGGGAGG
CTGAGGCAGGAGAATGACGTGAACCCAGNAGGTGGAACCTTGCAGTGAGCCGA

Sequence 1506

CCGCGGTGGCGGCCGCCGGGCAGGTACCATTTCTGCATTTATTTAGCCCATGGAATAA
CTGTGCTGAGAAACCACAGAGTCAATCAGATTCAAATGTTAAATCCTTCCTGCTTGA
GTTTTCCGTCTTCACATCAAAGCATTTTCATGCCCGTCAGCACTTTTAAATGCATTTGCT
CCTCGTTTGCACAATTTCCATTTAAAGACTTTCTTGGCTGACTTCTCTGATGAGGTTTC
CTGCTTGCCAGGAGAGCACGCTAATGCAGAAATTACAAAGGGGGCTTACAGTCCCTTTTC
CGGAGGACCTGATATTTAGATAATTTCCAGCTTCAGTTTTGGAGAAACGACTGTTCTTT
GCACCAGGGGAAAATAAACTGATTTTTCAGTGTAAGCAACCTTTCTGCAAGTAGAATGGGG
ACTGTTGGGAATGGAGATGAAGACTTCACTTCATGTTATTCATTTCTTAC

Sequence 1507

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTGG
GTTAGGTTAACAGAAACAATGGGGTTATTTCCGGTAGTGGCAACAGCACGAAGTATTTT
CTTGTGACTAATGGCCCGAGAGTTCCTGCGATTTGTGGATTATTTCCCTTAGATGCAAT
CGACCATTTGTTCCAATAAGAATTAATGCTACCACGGGGCTTACAAAGAACCCCTCAAG
TCTTCCAAATCTGCCCATGACATCAACCTNTGCTGCGTAATCGGACCTGCACCCAACCCA
GGTTT

Sequence 1508

CCGCGGTGGCGGCCGAGGTACGCGGGAGAACAGCTCAGAAGGAGACCCACAGTGAGCAGC
TCCCCTGTGTGGCGGGCAGGTCTGCTCCCTCAAGTGTTGAGCTCTCAGCAGAGAAAAGGCC
CTGGAGAGGGTGACTCCTCTCAGCTCTCAGCAGAGAAGCAGCCCTGGAGAAGGTAGCTTC
TGTTGCGAGGCAGATTGTCCAGAGGTCCTGCTGCTCTCAGACGGGGCCCTGGAGAGGATA
GCTTCTATCCATAGGCAGG

Sequence 1509

TABLE 1

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CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATAGCA
GTGGAAGCTGCAGAGGGCCGAAACAAAAATGAAGTTTTCTACCAATGTCCAGACCAAATG
GCTCGAAATCCAGCTGCTATTGACATGTTTATTATAGGTGCTACTTTTACTGACTGGTTT
ACCTCTTATGTCAAAAATGTTGTATCAGGTGGCTTCCCATCATCAGAGACCAAATTTTC
AGATATGTTACGATCCAGAATGTGTAGCAACAACTGGG

Sequence 1510

CTCCCGCGGTGGCGGCCGCCCGGGCNGGACTTTTTTTTTTTTTTTTTTTTTTAAAGAT
CCAGACTAAGACACATCAACAAGAAATTTCCAAATACCAGGTCAAGAATACTTCACATGT
TTCTGGAGGGAAAGAAAACAGTTCATATACAGNGAATCAGGAATTACAATTGCATCAGAC
TTATCAACAGCATCGGGAAGATAATGNGAAAATACCTTCAAACTCTNGAGGGACACAAG
AAGATGCTGCCTGGCCACAGGAGCGAGACTGCTGGCCTCCAATCAGTCTTNTGGGCAGGC
CTNTGATGCAATTACAGGGCTAAGGAACCACGGTAACCAATGTGCCATTGGCTGTGCTAA
AACCAGNGGCCCCAGGAAGAATCCTGTTGACACTGGCTTGGAACATGAGGCTTAA

Sequence 1511

CGACTACTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAAGGTACTTTT
TTTTTTTTTTTTTTTTTTTTTGGCATATAATCCAGTTTATTAAATACAGATGATGGGC
CAGACATGGTGATAGAGAAATACAGATTAAGAAACCAGATCAAATCCTTTTAAAGGAATT
ATNTAGNGGAAAATATNTCAACTNTNTNTTACNCTACTATTATTATCTTACACTTCA
AATCTTCACCTTTCATTTTGACNGNCGCTNTTTACTTCAGNNTCCTGAAAACATNTTT
CCAACAGAAGTTACATAAAAATNCTAATCTTCAAGGGGCTTCTAAAATATTTTATCATC
GTCATTAATCTTCTTCACTAGGCAANGGTTNTGTCTTTATGGGGGCTG

Sequence 1512

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGACAGAAATGGAGTCATCAGTTTATCA
ACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACC
ATATTCCCAGGACAAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAATAT
TGAGGATGCGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGTTATTTTCTGACTG
TCAAGTTTCAACATTCAGGTCTGTCCCAACAGGCACCACACCCGGGGGTGGACTCCCTGT
GTAAGTTCTCGCCACTGGCTCGGAGAGTAGACAGAGTTGCCATCTATGAGGGAATTTCTG
CGGATGACCGGAAATGGGTACCTCGGCCGCTCTANAAGTAGGTGGGATCCCCCGGGCTG
NAAGGAATTTGATATCNAGCTTATCGATACCCGTCCGACCCTCGAGGGGGGGGGCCCGG
GTCCAGCTTTTGGTCC

Sequence 1513

NGGGGCCGCCGCCCGGGGCCGNCNAAAGCAANGGGGGGCCAACNAAGGCNNGGNNNCC
CCNNGGGGGNANGGAAAAACGNGGGNAANCCCCGCGGCAACCAAAAGGGGNCCAACAACA
AAACAAGAACCGGGAGGCCCGGGGGGAGNCCANAAAAAANGGCGGCANAAAAGNCCNGG
GGGGGGGGGGGCCCNAAAAAGGAGGGNNGGANGCCAAAAACCAGCNACNAANCAAAAN
GCGGCCCGGGGGGGGCCGCCCAACNNGGGCCCCAGCCTTAAAGNCCCAAGAAANCCGCGG
GGAAAAAACCCCNNGGNCCGGGGGGGCCCAAGCCNNGGGCCANNAAAAAANGGGAAAAA
NNGGGGGCCCCCAACCCGCCCGCCGNGNGGGGAAAAGGAAGGGGGGCGGGNCCNCCGC
CCGNAANNCCGGGGGGGGCGGGCCNCCGNGCCCCGCCNCCNCCNCCNCCGCGGGCNAAC
CNGGGAACCGCCGGCCNCGGCCGCCNCCCGGGGGGNCCCGGNNAACCGGGGANGNGNC
CGGGCCGAAGCCGGGGGNANGCAAGCCGNCNAACNCCAAAAAAGGGGC

Sequence 1514

GTNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAAGTCTTNTAAATCTGGTGTGTTT
TTTACACTTGAGCACATCTCAAATGAAATAGCAACATTTACATGCACAAGACTCACAT
ATCTTCTGATGGCTATCTTGTGAATAGACAATTCTAGGAAGTTCAAAAGGGGGAACAA
TTGCTTCTCAAATTGATGAAGGTAGAGAAGAATGGTATCAGAGAACTGATTAAGCAGGG
ACCTGGGAATCTGAGTTGAGTTCCGGGGCATGTTTGTTCCTAGCACCATGACCTACATG
GCAGTGTCTTCTCATACTATTNTAAGAGTCCCTGG

Sequence 1515

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGAGGCCAAGC

TABLE 1
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TGGACTGCATAAAGATTGGTATGGCCTTAGCTCTTAGCCAAACACCTTCCTGACACCATG
AGGGCCAGCAGCTTCTTGATCGTGGTGGTGTTCCTCATCGCTGGGATGCTGGTTCTAGAG
GCAGCTGTCACGGGAGTTCCTGTTAAAGGTCAAGACCCTGTCAAAGGCCGTGCTCCATTC
AATGGACAAGATCGAGCGGCCGCGGGCAGGTACTTCATGAGACAAAATGAAAAAGGAGA
ATTAATTAATAATGCACAATAATTTATCTACTACAGACATAATTTTCTCAGTTGTG
AACTAATTACTATGCTTGGAAAATGCTAGCATCCTCATAAATTTTTGGTTCTATTGGGA
TACAAAATCTGATTTTCGCAAACCTTGCAAAGGCACATTTT

Sequence 1516

CCGGGCACGGTACGCGGGGGCATTATCTTCACTCTGATGAGGGCTCAGACTTGATAACG
CCCGTGGTGCCCCATCCCTATAGGAGCTGGTGAGATTGCAGCCTGCTGCCTCCCCTCCAT
CAGCCACAGCTATTGGATTTCCACCCAGAATCTTTAGGTAATGAGGTAAGTCCTGATT
TTTAAACTTCTTTGAATCTGGAATCCAAACACCTGAGTGAAAGAGAAGCCTGCTTTA
AACTGGACAGATGAAACTAGAACAGACTCTTGAGACGGCTGGCAGGAAGTGAAGCTCAC
CTTACCTGGGCTTACCTCACTGGGTCAAATCAGAATTTTATTTTGGAGGGCAGGTTGGCT
ACTTTGGATATTATCTGNGAATTCCTGCATTGGCTGGACTTCTAATCTCTGNGAATTTA
AAAGCC

Sequence 1517

CCGCGGTGGCGGCCGAGGTACCTTTTAGTTATTGACAAGGTTAAAATAGCACTCTCAGTT
TTTCAGTATTACAGAGAGCAAATAGTTTCTCTCCTGCTCTGNGCAGTAGCTTTTCCAGA
ACTATGGACAAAATTNGATCAGAAAGAAGATTGATTATTTCTCATCTTTTTTTCTTTTT
TTTGAGACAGAGTCTCTCTNTGTCCCCAGGCTGAAGTGCAGCGGCATGATCTCAGCTCA
CTGCAACCTCTGCCTCCCGGGTTCAAGTGATTCTCCTGCCTCAGCCTTCTGAGTAGCTGG
GATTACAGGCGCCGTGCCANCATGCCCGC

Sequence 1518

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTCTTCTTTCTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGCANNAAAAANCNT
NATTNCCATTNGGCCCAAGGCTTGTTAGGAAAGTAAAAAAGCCCCNATTGGCNGGNGG
GNNNGGCTTAGGCAAAACCCCTANTACTTTGCANGGGGCCCTCNAAAAAAGCCCGNGGGCC
CNAAAAAAGNCCTTAAANCCNCCNTGNAANAGGGCCCCCTTNAAAAAAAGCCCCNNNNN
NAAATTTTGNGGCCCCCCCCCGGGGGGGGGGGGGGGGGGGGNGGCCCCCCCCCCCNTT
TNTNNAACNCNCCNCCCCCCCCCNNAANGGGGGGGCCCCCNAAAAAAAAAANGGGG
GGGGGGGNNNGGCCCCCCCCCCCCCCCNAAAAAAAAAANGGGGGGNGGGGNTTTTT
TTTTNCNCCCCCCCCNCCNNNNNNNNNGGGGGG

Sequence 1519

CCGGGCNTGGACTTTTTTTTTTTTTTTTTTTTNCCTTGCTTTGGTTTTTCCTTCGATA
TCTTCAAATCTGTGTCAGAAGAAAATGTGTTCTGACTCCTGTAGTAGATTAATCA
GTTGGTATTTCTGGAGCTGCTATCATTTCTTATCATCTTCTGGAACACCTCAATGTCAG
AAATATATTCATATATTTACGTGGGTAAAATGGNGGCTTGCCCTTTCTTCTAAGACAA
TTCTCACGGNGGGCCAAGCGCCCTCCGGGTGCCCTCCAAACTTNTAGAAGCTTCGCCT
CCGCCATTTATAACTTACCTCCCCGCGTACCTN

Sequence 1520

CCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACA
CTCTACAAAGGCGAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACG
ATGGA CTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGACCCCCAGCCTG
GTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACC
TACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGC
AGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTCOCAG
GACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAATATTGAGGATGCG
CTCAACCAACTCTTCCGAAACAGC

Sequence 1521

CCGCGGTGGCGGCCCGGGCAGGTACATCACCCTGCTGAGGGACATCCAGGACAAGGT

TABLE 1

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CACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAA
CTTGACGATGGACTCCGTGTCGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCC
CAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGG
CTCCACCTACCAGTTGGTGGACATCCATGTGGCAGAAATGGAGTCATCAGTTTATCAACC
AACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATA
TTCCCAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAGGAATATTGA
GGATGCGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGT

Sequence 1522

TACTATAGGGCGAATTGGANCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTTTGGTGGTAATTGAGCTGGGAAAAATTCAGAAATTGGGTCATAATTAATGGTAACTAAA
CAGATTTGNGAATATGGGACATCTGTGGNCTTGAAAACATCAGTATGATTTGNCCCCATA
TTTCTTCAGCCTGGACAATAGAAAACAGACAGGGGAGGGGGGTAAAGTGCANTAAAGTAGG
CTGAGTGATGTGGTGTCTAGCAGCTGGAGTCCAGAGAAGTTCTGACAGTGCAGGGAGCAGC
CCCTTTGTTCTTTGGAGCACTGGAAGGGCTGAGCTGCATCTGAGGTGTTCAAGCCACCAA
CAGGACAGGGTAGAGGACTAAGTAGCACATGTCCTCCAGAGCAGCTTCTGTCTTTGTGT
GGTCACATCACATCGGGGGAA

Sequence 1523

CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTT
TTTTTTTTTTGCTTCTGGTAAAAAGAAGCATGTTACAATTTTCCCCCAATTCACATA
GGACTCTAAGAACATATTTTAAATCAGTGCTTCCATACAGGAACGAAATCCACTATTTTA
GAATTCTAAATCTTGTGAAAAGCAACCTTATCTGAAGAGTAAACAAGAAGATTCAAAGT
TAAGTATCAGTGCAGTCCAGAGCCCCCTAAATGAATAAACTGAATGTATCTTAAAAATAG
GATTTGCACACCAGTAAGAGACTTGTTCACGATTCTGGGGAGGAGGGAAGAACTGTAAG
AGGGAGAGAAAAGGGAAGAAAAACAAGAAGAAAAATAATNGGAAAAAAAAAAAAAGAAAGA
AAGGTTTGTTTAGCTCAAAG

Sequence 1524

ACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAATTGAGCTTAG
TGATATTAACCTTGGTAAATTAAGCCAGTTTGTCTCTTTGCTTTATCTGTCTTGGAATC
TGTATCAGTGGAAATTAATAGTCTTTACATTTGATGAACCCTGTTTAGGTGTTGGAAT
ACCCATCTATTTGTTAAAAAGGCAAGGTCCCATGATTTAGTGAATGGGGGATACAGACAG
CCTTTATTCAAGTAACTGAATAAACAAAAGAATTAGAGAGTGTGATGAGTTTGAATAAAA
AATATAGNTCATAAAAACCAGAAATGTGATAGAGCATAGTGGCTGGAAGAAAGTTACCCA
AGTGGCTTGGGTAGTCAATGAAGTTGACTCCAACATGCAGTAGTACGCCGGGTCCTAAGA
TAGAGATTAAGTCATGGTTTAAATGAGGAACAATCAGTAA

Sequence 1525

CCGCGGTGGCGGCCGCCCGGGCAGGGTACACCACTGTGCCTGCTTTGAATCCTTTACGAA
GAGAAAAAAAATTAAGAAAGCCTTTAGATTTATCCAATGTTTACTACTGGGATTGCTT
AAAGTGAGGCCCTCCAACACCAGGGGGTTAATTCCTGTGATTGTGAAAGGGGCTACTTC
CAAGGCATCTTCATGCAGGCAGCCCTTTG

Sequence 1526

GAGCNCCCCGCGGTGGCGGCCGNTGTACTTTTTTTTTTTTTTTTTTGCTTNTAATTGGA
TGCCTGGAGACAATTCATTTCAATTACCTTATTGGCATGACNAGATATACAAGGGCTGC
CAATGTCAATACATTAAGACTGAGCGTGCTGGAGCAGCAGCCAGGGTTCAGGGCACTGCT
GTGTCTATCTGCGCCACGGTGCACAAAGGCAGNTTCAAAGCATTTCAGCATGATCGCTTC
CCTCTCTCCGCTCCTGGGAGAGAAGGATCCTGCACACCACAGGCAAAATCATGCTGAAAT
TGAGNGNGNCCTTTGGGACTCCCATCCCATCACAGTCTTGGGAT

Sequence 1527

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGTGGATATTGGTTGAACA
AACAGGTGGGCAAAGTGAGGAAGATAAGAAGTCCATCCGTTTCAAGTTTCCCCACTGCGGAG
GGAATAACACTGTCTTTCCACAGGTCACAGACTGGGATGAGCAACGGGCTGAAGGCACGT
TTCCCGGAAGATCTGAACTGGCTGCATCTCCCTTTCTGTCTCCTCCATCCTTCTCCCA

TABLE 1

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AGATGGTGAAGGGGGACCTGGTNCTG

Sequence 1528

AGGTACGCGGGATGGCACATANGACATCAGCTAGGCTTTTGGGAATCGTTTGTGTTCTTT
GTGGAAATGTCTTTAGAAGCACCCATGAAGTAGTGTGTTTCACTGTGCACACAGAAAA
CAGGCTCTGCCTTACATGTGAGACGGTGGACTTTTCTNTGGACAAAATGACAGCATNC
TGGCGACTCCACAGTGGAGCTGAGCGCCACTCCCTGTAGCCCGATCTGGGACTGAAACGC
TTACACCTCTGCCTTAGAAGGAGTCCCCCNTGCC

Sequence 1529

CCGCGGTGGCGGGCCCGGGGCGAGGGTACGCGGGGAATTAGTCCGAGTGGAGAGAGCGA
GCTGAGTGGTTGTGGTTCGCGTCTCGGAAACCGGGTAGGCGCTTGCAGCATGGCTGACC
AACCTGACTGAAAGAGCAGATTTGCAGAATTTCAAAGAAAGCTTTTTTCACTATTTTGA
CAAAAGATGGGTGGATGNGAACTATTAACCAACCAAGGAATTTGGGGAACCTGTAATG
AGGATCTTTTTGGGCCAGAATCCCCACAAGAAAGCAAGAAGTTTACCAGGGAACATTGAT
TTAATGGAAAGTAAGAATGCCTTGATTGGTTAAATTGGCACCAATTTGGACTTTCCCTTG
AATTTTCTTGACAAATGGATGGGCCAAGGAAAAAATTGGAAANGACCCAGNACCNGTTG
GAAGGAAAGGAAAA

Sequence 1530

CCGCGGTGGCGGGCGAGGTACGCGGGTGTTCCTTTTTGTTCAAAGTCTATTTTTATTCTT
TGATATTTTTCTTTTTTTTTTTTTTTGNGGATGGGGACTTGTGAATTTTTCTAAAGGTG
CTATTTAACATGGGAGGAGAGCGTGTGCGGNTNCANCCCAACCCGCTGCTNACTTTTTCAN
CCNNTTTTCAACNGNCTNTGGGTTTTTAANACCCCTNGGNTTTNTACCCCNNTCCTTTGNA
AANCCCTNNNCCNAANNNGNGGGGCAANANCCNGNGGGCCCNCTANAAAAANANCTTGCGG
CCCCTGTCCCCCGGGGTTTTGAGGACAANTTTNCCCAAAGCNAAAAAANAGANGTTTTTT
CNCNCTCNNTCCTGGNGGGGGGGGGGNGAAAAAANNTTTTTTTTCCCN
GNNNNGGGGNGGNNNCTTNAAAAAAAAAAANAATGTCCCCCCCCCGNNNNGTGGGCG
NNAATTTTTNTTAANAATATTTTTNNCCCCCCCCCCCCCCCCCGGGGGGGG

Sequence 1531

ATAGGGCGAATTGGAGCTCCCCGCGGNGGCGGCCGAGGTACCATTCGGGGTCATCCGCGAG
AAATTCCTCATAGATGGCAACTCTGTCTACTCTCCGAGCCAGTGGCGAGAAGTTACACAG
GGAGTCCACCCCGGTGTGGTGCCTGTTGGGGACAGACCTGAATGTTGAAACTTGACAGTC
AGAAAAATAACTCTTGATGCTGCTGTTTCGGAAGAGTTGGTTGAGCGCATCCTCAATATT
CCTTTTGTCTCTGTTAATTGGTGGTGCCTGGCTGGGCTTTGTCTGGGAATATGGTAG
GTTGGTGATGGTGAAATTCAGGTAGAAGTGCTGGGTGCTGGAGCTGCTTGTGGTTGATA
AACTGATGACTCCATTTCTGTACATGGATGTCCACCAACTGGTAGGTGGAGCCCAGCCA
ATGGGAATGAGGCATTCAGGGTCTTATCTAGAAAGACTTGCTCCACCAGGCTGGGGTCCA
AATTGGAG

Sequence 1532

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGAGAAGGTCCCGGCAGCACGCACGGA
AGAAGACGGACCCCGCGATGAGGGCGGGCGGCAAGGAGCACCTTCATGTTGCGTTCCGGAGA
GGCGCAGCATCCACAGGCCCGCGTACAGACTGGTTTGGTAAATGCTAAACTTTTGTGTC
TTTTGCCTTTTTAAAGGAATTGTTAACATTGGAATTGAGGGTATGTACCT

Sequence 1533

AGGTTTTGGGCGATCGTTTTCATACGAAATATTTGAGATGCTTTAGATGTGTGTGCATGT
CAGCTGCCACCTGAAAGAAAGGCCTCATTAAAGATTTTCACTGATTAACCTTTTGATTGT
TCTTGGGATCTCAGATGGGAATTCACGCTGCTTGCTGCAGAGCTCTTGGGCTAAGTGTAT
TTTCTTAATTACTGAGAAATGCGTGTTATCAGTAAGCAGTGAAAAGTCTTGAAAAAACTA
AGTAATTTTAAAAAANNTTAAAGTCTGCCCCG

Sequence 1534

NCGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTT
TTTTTTTTTTTTTTTGGNGGNNGTTTTTCATTTTCTTCTGGAAGTAAATTTTACTTCT
GGCCTTGGTGGTCTTTGAGGGTCTACATCAGCCTNATCTTGTCCACTGCCAGCTCCTTGA

TABLE 1

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GACTTTCTTTCTTGTCTAGGACCAGTTGAAGCTCATTATTAACCTGCTGCAGCTCCTCA
CCATTCTCCTCATCGGNGCCTCCATTACACGAGCAGGGCGTGCCTGCTGCTCACTGTGA
TCCAAAATCTCCTNGACTTGCTCAGGGGCATNTGTAGCCTCC

Sequence 1535

CACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTGGTG
TTTTTGGAAAAGTTACATTTAGATCTATTCTGAAGCTGTTCATTTTAACAAATAAAAT
GTTACAGGTTTACATGATTTATTCGCAAAAAAAAAAAAAAAAAAAGTACTGTCTGTGA
ACAGCAAGGAAAAATATGATTACACCTAAGAGATGAAATTGGCATAGGCGAGAAGTCAGAA
AAATAATCTATACAGCTTGCATGGTTGGGGAGTTAGGAGAGGCCAAGGCCACGTGCACGT
AGAGCAAGAGGTAGAAGAGGCCCGGGGGCTAGAGCGCACCCCTGGTGGATAGTGTGAGAAT
TTCACACTGGCTCAAGCCTTGAAGACCACCCAGGGGTGCGCCTTAGCAACGCACCTTATG
CAAGACCCCAACAACTGGCCCTTGAAGGAGCTTTTTACTGGTGGGATGTG

Sequence 1536

AGGTACTAATATCCCTTAATGGCAGAATGTGATAATCATGGAATTAATTATTGCTAAAGT
AGTTTTCAAATAAAAAAAAAAGAAAAAGAAAACAAAACAAATTAACCTTGACACAATCTGA
CCAAACACGTGTCAATTTACAATTTCAAGGTTATTTTACAAAATACCTACATTTACACAA
TAGGCTCCCGGCAGCATTTCAGACAAATGTTCTTTTAAATTTATCCTGACATGCTATAAA
TGAATAAATTACACTATTTTAAAAATTATCATCAGTAAGTTTTCTTTCTCATGGGGGT
CAANAGCAAAAAAGAAAATNNAGGCNTGCCAAGGAAGGATTTGGAGAGGGGAAAGCCGC
CACGCACCACCACTATAACCTTAAATAAACAGGGAGGGGGCTGGGGGGAGGGGGTCAAC
AAATCACTTGAAACCCTCACAACAAGTGGTGGATGCCTCTTCCAAAGGGGGGNGGAAAA
GGTTCAANCTTGGCTTTTATTAGGCCANTTTCAAAAAAGGTATTTTTAAAGNAAAAA
ATGGTTTTTGGTANGGGGAAAAA

Sequence 1537

NCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTCAAACACCTCATGA
GGCTGGCCAGAGATGACACCACTGCCCGGATGCAAGGGGGCAGCCTTGCTTTGGACCCC
GTTCTGAATCTCAGGCTTCATCTATTAGGCACACTGAGCAGAAACACTCCTCCCTGCCAC
TTCCGAGTTGCAGCAAAAAGGGTCTAACTATGATTTAAAGCAAATAATTTTAACTTCAA
ATTTTCATTACTGTCACTTATGAGGACCAAATAATGTAATGACTAAGACATCAAATTA
CATGTAATATGAATAAAACCAGTAAGAAAATGATAGTTACTTATAATTGGATCAACATAC
AAAAAGAACGTCAATTTGGCCAAAGTAAAACGGTTAAAAAATAGTGTCTATAAAATCACC
ATATAAAATCTTAGTATGTACCTGCCCCG

Sequence 1538

CCGCGGTGGCGGCCGCCCGGGGCATGGTACAAAACAAATTCAAAGGGTTAAGAATTTCAAG
TTGGTAGCTTCAGAGCATTAAGCCCCAAATGTGGGGTCCCTTCTGAGCCCAGGATTATGT
GTGACTGCACTGGTCACATTGCCATGAAGCCAGCCCTGGTGGTTGGTAGAGGGGTGGGCA
CTGGACCTAAGCAGGGCCAATCAGAGCCATTCTGGAAATGGATATATAAATATTAGGAA
TGCAAAGTTATTTATTTTGTAGAGTTGAACAACNGTGATCTGTAGAAAACCAGTCACA
TTTCCTTAAGGATGCATNAATAAATATGAGCTAAATGTAATAATTAGAACCTTTGGTTTCC
AAGCAGATTCCATGCTCTAATTCCTGGATAGGTGAATATAATAAGATGATNTATCCNTG
AATAAGNTNCTTTTNCCTTTGCCCAAGGGGACANGATGGTAAATAAGGGCTACTAAATCAA
GTTGNCCTTTAAATAA

Sequence 1539

CCGCGGTGGCGGCCGCCCGGGGCAGGTACAAAACAAATTCAAAGGGTTAAGAATTTCAAGT
TGGTAGCTTCAGAGCATTAAGCCCCAAATGTGGGGTCCCTTCTGAGCCCAGGATTATGTG
TGA CTGCACTGGTCACATTGCCATGAAGCCAGCCCTGGTGGTTGGTAGAGGGGTGGGCAC
TGGACCTAAGCAGGGCCAATCAGAGCCATTCTGGAAATGGATATATAAATATTAGGAAT
GCAAAGT

Sequence 1540

GTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCATGGCCCTTCCTT
TGAAATCATTTTTCTTCCAGGCCCTTGGCTCCGGGCCTGGGAGACAGAATGAGAGACA

TABLE 1

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GCCCCAAGGATCTGTGATACACTTTCAGGGTCATTTTTTCTTGTCCCTGCCAGTCCAGG
CACACCTTTTGTGTTCTCTCCTGAACATACTTTCTCATTTTTTCACAATATGGAAAGGCTG
ATAATTTTTCAAACCTTTAAGTTCTCTTTCCTTTTGATTGACCATTTTGTCTTTAAATCA
TTTTTCTTCTCACATTTTATTATTATAAACATTCAAGGGAACCAAGCCATTATTTTGTCT
TAGAAATTTATTCAGCCAGCTGGGGCGGTGGTGGCTCACACCTGTAATCCCAGCACTTTG
GGAGGCCCGNGGTGGGGTAAGATCACCTGAGGTCAAGGAGTTTCGAGACCAGCCTGACC
AATAATNGGTGAAACACTTGNCNTTACTTAAAAAATACCAAATTT

Sequence 1541

GGAGCTAAACCCCGNGGCGGCCGAGGTACTTACCCTCAATTTCAATGTTAACAATTTCT
TTAAAAAGGCAAAAGACACAAAAGNTTAGCATTTACCAAACCAAGTCTGTACGCGGGGCCT
GTGGATGCTGCGCCTCTCCGAACGCAGCATGAAGGTGCTCCTTGCCGCCGCCCTCATCGC
GGGGTCCGNCTTCTTCTGCTGCTGCCGGGACCTTCT

Sequence 1542

CCGCGGTGGCGGCCGAGGTACACAAACGAGATGCTACCTAGGAGAAGGGTATTCTTTTCA
CTATTCTTTCAAATTTTCTGTATGTTGAACATTTTCATAGTAGAAAGTTGGGGGAAAA
TCTGTTTCATAAACATTTCTCAGCAGCAGTCCAGTCTATTGCATTTTAATTGGTTGTGA
TATCATTGTTTTATGCAATACGTTCTCAACAAGTATATCCTCCGGCAAACGAACAAGGA
CCAAGTCTGTTCTGCCTACAGCTCTGCTTCTCATAGCTGCTTTCCAGAACGTGACTCTT
GCAAATTATCAAGAAAGGGGAACATACTAAGGGATCCCAGATCAACAGCCTNATGAAGA
CCTTAATTTATGNTTCTAANATAAAAGATAGGAAGTTTTCAAAAAAGCCCCTGCTTAC
ANAGGATCAANANCAGGGGGTGGGCCCTGCTGGGCTTNCAGTGGGATTTTTTGAGCATTN
CTTCCCNGGNGGCNCGNAAGGGGNGTGGNGTGAGCCCNAGGGNGGAAAAAATTT

Sequence 1543

CCGCGGTGGCGGCCGAGGTACTCCTTCGTAAACCATGGAGAGCCAGCCCAATGCACAGCA
GTGGATATCATCTTTCTCAGAGTCCAGTATCACAGAATCACGACTTTGTCCAGCTGCAGG
TGCCTGCAGTACACTGGCTAACTACTTCTGTGATGGGCTCTTCTTTCTGAGGTTCTGC
CAACTTGCTACTACATAGGGTTGATCATCCTGTTGAGGAAATATTTCTTTCATTTGCTC
TGAGCTTAATATTGTAATTTGTATTTGATCTGCTGGGTCTTTGGAGTCAGGACTGTTTT
ATCAAGCAGTTTGATCTTCTGAGGTCTGGTATTGTAGTTTGCTGGCCACAGAACCTTCA
CGTGATTACAGCCTCAATGCCATAAGGAAACTCTT

Sequence 1544

CCGCGGTGGCGGCCGAGGTACTCCTTCGTAAACCATGGAGAGCCAGCCCAATGCACAGCA
GTGGATATCATCTTTCTCAGAGTCCAGTATCACAGAATCACGACTTTGTCCAGCTGCAG
GTGCCTGCAGGTACACTGGCTAACTACTTCTGTGATGGGCTCTTCTTTCTGAGGTTCTG
CCAATTGTCTACTACATAGGGTTGATCATCCTGTTGAGGAAATATTTCTTTCATTTGCT
CTGAGCTTAATATTGTAATTTGTATTTGATCTGCTGGGTCTTTGGAGTCAGGACTGGTTT
TATCAAGCAGTTTGATCTTCTGAGGTCTGGTATTGTAGTTTGCTGGCCACAGAACCTTC
ACGTGTATTACAGCCTCAATGCCATAAGGAAACTCTTTAAGAAGTTCTGACAGCTGGT
CATGTTAGGTATAAGAACAGGGTGCCCTTATCACTGGTGGATTTCAATTTCT

Sequence 1545

CGAGGTACTTTTTTTTTTTTTTTTTTTTTTGGGGAGTTTGTGTTTTTAACCAAATTATNA
TAGATGGAAGCATTAGGCAGCTGAATGTTCAATTTGCCTTCANACATCATNTCCTATTTCA
TTTGCTNGNCTCGCATTAAGAAAGATCATTTATCAGCAAAAGCATCATTTATTTGTTTAA
ATGACAAGGTTTAGCTAGCAGAGNAGAGTTTGCNATGCTTTAANAATAACNTTTGAC
TTTTTCTCAAGACACTACAAAACCATTTGTTCAAAAAAGGCTGCCCAANGTCATTTANAA
GAATATTTTTCAAAAANGTCTATTTCTNTATTTTTAAAAAAGCTGCCCTTTACCAATCTTT
GGTTTTGAATTCACCTGGGCCCTTTCTTTTAACTTGAAAGGGCTTAAA

Sequence 1546

GGCGGCGGCCGAGGNACAAGNANCNNTTGGNGGAGGGGGGNGAAACCAANACCCGAACN
NGGGACTGNGCAGACAAGCTATATCTTAANCCNCNCCGGGCCAGACCNCNAGCAAGGN
GAGGAAGCAAAAGNCCACAGNNACNGGGGCAGGNAANNGGNANAAANGAGGGNGNGGGGC

TABLE 1

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NGGNTGCGGTGNTTACAGGGGGAANCCCAACACCCCGGGAGGNCGAGGCAGGAGGANCG
CCCGAGCCCAGGAGGNNAGACCAGCCNGGGCAACANGGNGAAACCCNGGCNCNACAAAA
AANACAAAANNAGCNGGGCANGGNGGNNNGGGCCAGNGANCCCAGCNANNNNGGGGAGGCN
GAGGNGGGAGAAAANGCNGAGCCCAGGAGGCAGAGGNGCAAGNGAGCCCAAGAANGCGC
CACCGGAACNCCAGCCCAGGCAACAGAANGAGAACCCGGNCNCACANNAAAAAAAAAAAG
AAAANGAAAAAGAAAAANGNCCCNNGGCCGGCCGGGCCGGNNCNAGAACCANGGGGAAC
CCCCCGGGCNGCAGGAANNCCGAAANCAAAGCCAACNGANACCGGNCAACCCCGNNGGGG
GGGCCNNGNACCCANNNNNNNNGGNNCCNNNAGGGGAGGGGNAANGGCNCGCCNNGGNC
GNAACAAGGGGCAAAAGCNGGNNCCNNGGGGGGAAANNNGGNANCCNGNCNNCAANNCCC
NNNAACAAACNAANCCGGAAGCAAAAGGGNAANNCCGGGGGG

Sequence 1547

AACACCACCGCGGNGGCGGCCGNCGGGCAGGNACTTTNNTTNGGGGGNTAAAAACCCC
CCNAAAAACNGGGCCCTAGNAGAAGGCAACNTTCATTNCAAACGAGGGGGCCCCNGCCCC
GNGAAAAACGGGGAACACGACGNCNAAGGCAGANCCCCGNAAGNACCTACNNNGGACAG
CCGGGGCAGGCGNGCAAANNNTTGGGCNNGGCCNCGCAAAGCACAAAGGGGGACACANA
ACCCACTGCCACGGCGCAGGAGAAAAAAGAAACAGCAAANCACGAGGGGACAN

Sequence 1548

CCGGGCAGGTACATCANTTNTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAA
AGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTC
CGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTGGTGGAGCA
AGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAATT
GGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAG
CACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTTCCAGGACAAAGC
CCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAATATTGAGGATGCGGTGAGAAG
GGGGTGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGTTATTTTCTGACTGTCAA
GTTTCAACATTGAGGTCTGTCCCCAACAGGCACCACACCGGGGTGGACTCCCTGTGTAACT
TTCTCGCCACTGGCTCGGAGAGTAGACAGAGTTGCCATTCTATGAGGAATTTCTGCGGAT
GACCCGGAATGGTACCTTNGGCCGNTTCTAGAACTAGGNGGATCCCCGGG

Sequence 1549

CCGCGGTGGCGGCCGAGGTACGCGGGGCTTGCACTCTGCGGGCCAAGGAGTGGTGGGTGA
GATCTTCCATGGCCCTGGCATGGGTGATATAAGCGGGACCGGTAAGGTGGTGGAGCTCTT
ACCAGACCCTGCANAACCCTCTCCGTGGTGTGAACCTCCTGGAACCAGGGTGTTCATG
TTTTCTCATAATGCAGGTTGGTGATGGTGAAGTTGAGGGTGAACGGCACCAGGAGAGGG
CCAGCAGTTGTGGGGCTGGGGAGGGAGGATGGAGTCCCTGACCCAAGGTCCACTGTGGAG
GTCCAGGAGCTGAAAAAAGT

Sequence 1550

AGGTACTTTACAAACAAGTCTGAAAAAGGAGGGAGTAAAGTATGGAAGAATGATCTCTGG
ATGTTGCTACTGGCCTCAAAAAAGCAGTGCTACAGATTTCTGTGTGAAGAGAATACGCTG
TTCACACATTTTCTATTTCCAGGCATGAAAATATTCTATTGGGTAGAAGAAATAGGAAA
ATCTCTTATGACAAATGAAAGACAGGTGCAAACACACCAATCCCTGTCTAGCAGTATAAA
GCATATTGGGCTCAGAATTTGTCTGTGCTAGCACCTGGCTTTCATACTATATCCTTATC
AAATAATCAGATTGAAAGTCCAAATCATTCTTAAGCAAGCAAAAATCCTCAGTGGCCATA
CCTCA

Sequence 1551

GGCGGCCGCTCTAGAACTAGNNGGANCCNTTTTGGCGGGGGAAAAAACCCCAAGCCCAN
GANACCGNCGACCNCAGGGGGNNCCCGGNACCCAGCGNNNGCCCCNAAAGAGAGGGNN
AANNCGCGCNGGGCGNAANCANGGNCANAGCNGNNCCNNGNGGAAANNNGNNANCCGCN
CACNTTTTNNTTTNNCNGACGAGCCGGGNGCANAACCCCAANANA

Sequence 1552

CCGGGCAGGTACGCGGGCTGCCTGGGGATGGCAGCCGCGTGCGTTCCCTGTGCTGCTG
TAGGGTTGTGGTGGCTTTCTGATATTCAGGTTGGTCCCTTTTCTTCTTTTGGATGGGC

TABLE 1
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TTTCGAGGTTGGGAGAGGAAGCTCAGGGATGGAAGTACTAAACATATGTGAGATGTTTC
CTTGTTTGCTGCTCATGGAGGTTTCATTTCTGAAGTCTTTCTTGGGAGGGAAAAGGATG
TGTGGATATATGAGGTGACTCTAGAACCCTCATTTTATGGATGAAGAACTGTGATTAC
AGAGGGAGAGTGATTTGTCCAGTGTACGTGGGGAGCTGGCCGGGAGCCAGACCTCCTG
TACCTCGGCC

Sequence 1553

TACTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATTTCCATG
GGCCCTGTTCCCATTTGATGTATACTGCTTCCTTACTAACAGTGAGGGATGACTTTCATCA
GTCTTTTATCACCTGAACAGTCTTCCGGCCATAATGATAGTAACTATAAGCTGATGCAGC
TGTGGTGAAGCTGTAAAACACCTTTTATGGAAGAAAAGAAAATAAATGTAGTTGTCAAG
TCTAAAAAATAGTAGCAACGGGAATCATAATGAATACATGCAATGAATTTAAATGTAAA
AATGAATTTAAAAAGTAAAAAGGGCTCTGTGGTGAATTTTCTTAACACAGAGTCTA
AATACACTGCTTTTCTTTAAGAGTTCATTTTAATTAGTAACGTCAAACAAAATTATTCTA
GATAATGAGCCCTACAAA

Sequence 1554

ATCGACTNCTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACGC
GGGTGGCCAGATTAATTTTCCAGCCAATAGAGGAAAGTTTTATATATTTTGTCAAGG
TGCTGGAGAGGGGAAAGGATGCCACACTTCAGAAGCAGGAGGACGTTGCTGTGGCTGCTG
CAGTCTTGAGCCCCCTGCTCAAGCTGGCCCTGCTGGCCGGCCTGACCATCACTGTTTTG
GCTTGCCTATTCTCAGCTGGCTCTGGATATCTACGGAGGGACCATGCTTAGCTCAGGAT
CCGGTCTGTTTTGCTGCGTTCCTACTGTCTCTATGTTCTCCTGCTTGCCATCAATGGAG
TGACAGAAGTGTTTCACATTTGCTGCCATGAGCAAAGAGGAGGTGACAGGTACCT

Sequence 1555

CCGCGGTGGCCCCGCCGGGCAGGTACAGCAAAAAAGAACTGAGAAGCCCAAAGTCTTT
CTTGTTAACATCCACTTATCCAACCAATGTGGAAGTCTTATACTTGGTTCCATTATGA
AGTTGGACAATTGCTGCTATCACACCTGGCAGGTAAACCAATGCCAAGAGAGTGATGGAA
ACCATTTGGCAAGACTTTGTTGATGACCAAGATTGGAATTTATAAAAAATATTGTTGATGG
GAAGTTGCTAAAGGGTGAATTACTTCCCTCAGAAGAGTGTAAGAAAAGTCAGAGATGCT
ATAATAGCAGCTATTTTAATTGGCAAGTGCCACTGTGGAAAGAGTTCCTGTGTGTGCTGA
AGTTCTGAAGGACAGTCAAATTCATCAGCATGGGGCTGTTTGGTGCAAATGCAAAAGCAC
AGGTCTTTTTAG

Sequence 1556

ATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGTCCACATCCCGAAGGCCATAGCGTC
GAGCAAGGTCACATGGATGGCAGCACCTTACCACTCAGGCTCAGGATATTGGGATCTGTT
GCCAAAGCCACCACACATTTGCCACTCAATTCTGTGGTTTCCGCAGATGAGAAGGCTGAT
TTGAACTGCTTCAACACAGGATCCTGCAGGACCTCCTCCTTTGCCATATGCTCCTTCAGC
AGTTCTGTCTGCACAATCCCCGGCCACAGAGACACACAGCTGACCCCATGGCGCCGCAGC
TCGTGGGCACAGTCAGCAGCCAGCTTGTACACGCAGCTTTGCCACACCATAGGGGACA
TTGAACATATACTGCAGGCTTCTGGGGAGGAGATGACCACGATNAGCCCCTGGCCAGCT
GGTACCT

Sequence 1557

CTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGGGT
CCTGGTGCTGCGGCCACACCACCCTGGGGTGCTCATTGACAGAGCTGCCATAATGAACTT
GAAAGGACGGGAATCACCGAGGGAAGCTGGGGCTCCCCTGCCACAGGAGAGGATCCCCG
TTCTTCAAGCTTCTGCTCAGTGTCTACTAACGACCGACATTTGCTAATGTAAATAATA
GTAAATTATTGAGAATTCTAATCTTTTACACAGTCTGTTTTTAATCTATTTTAATTAA
TAAATCTATGACT

Sequence 1558

CCGCGGTGGCGGCCGGGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTCACGTAGCT
GAGACTTCTGGAGAGACCATTCAAGGCTTCTGGCTCTTGACAAAGATAGACCACTGGAAC
CAATGAGGAAGGAGAGAATTCTACTGGTCACAGACAAGACTCTCTTGATCTGCAAATACG

TABLE 1
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ACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGATTCCTCTGAGCGCTGTCTATCGCA
TCTGCCTGGGCAAGTTCACCTTCCCTGGGATGTCCCTGGACAAGAGACAAGGAGAAGGCC
TTAGGATCTACTGGGGGAGTCCGGAGGAGCAGTCCCTTCTGTCCCGCTGGAACCCATGGT
CCACTGAAGTTCCTTATGCTACTTTCACTGAGCATCCTATGAAATACACCAGTGAGAAAT
TCCTTGAAATTTGCAAGTTGTCTGGGTTTCATG

Sequence 1559

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCCAGGCACAGCTAA
TTTTACTTTTTATTTTCTTGAGACAGGTCTCACTCTGTTGCCAGGCTGGTCTTGAAGTC
TTGGCCTCAAGTGATCCTCCAGCCATGAGCCACTGTAAATGTCTGGGAATGCCAACTTGA
AGCCAGAGTGGTCAGAAGTTCTAGAGGCCAGACTTGCAACTGGTGTCTGAAGGGATGGC
AGCTTTGGGGACTGAGCCCTCAACCTGAGGGATCTGATGCTATTTCCAGGCAGATAGTGT
CAGAATTAATTGGAGGATACCGCAGTTAGTGTCTGCTGCAGAACTGATTGCTTGCTTGC
TGGTAGGGGGGAAATCCCCACATATTGGGGGGGTATTTGAAGTCTTTTGGTGTGACTCT
TACTGNGTTTNGTTGGTTTTTCATGTGAAGAGCAGAGGGAAAAGCAAGGGA

Sequence 1560

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTACTGACCCAACAAGTGTGACTA
GCTGGCCACGTCATTCAGGGCTGGTGTGGCATTATGTGTGTGTGTGTGTGTGTGTGTTT
TTCCTGTTTGGCCAGCAGTGCATTGTGGGTTCCAAGAGTGGGTAGTGTGTGTATGTGTGT
GTGTCAGAGGGAGACCTGGCAGGCACCTNNTTGAGAGTAGCTGTGGTCAGAGCTGTTTGG
TCAGTGCATTATGTTGAATGAGGTCCAGGAACCCAGAGCCACCCAGCAGACACCACTGTG
GCTTGCCAGCTGCCAAGATGGAGAAGCATGTGCCCTGTAGAGCGTCTTCCAGAACCCAG
ACCCCGAGCCACTCGCTTCCCTCTGTGCTGNGACAACATTGGTGCCAGGGGAGATNGTTNT
TTTTTCAAAGGGGACCTACTGTAGCCCCTTTAAAT

Sequence 1561

CCACTCACTATAGGGCTGAATTGGAGCTCCCCGCGGTGGCGGCCGGAAGAGCAACCGAGA
TGAAGGTGAAGATGCTGAGCCGGAATCCGGACAATTATGTCCGCGAAACCAAGTTGGACT
TACAGAGAGTTCCAAGAACTATGATCCTGCTTTACATCCTTTTGGGTCCCACTGAGAA
TATGTAAGAGCTTTAAATGCTACCAAAGTGAACGAGTATTTGCAAAACCATTCCTTGCT
TCGCTGGATGGTCACCGTGATGGAGTCAATTGCTTGGCAAAGCATCCAGAGAAGCTGGCT
ACTGTCTTTCTGGGGCGTGTGATGGAGAGGTTAGAATTTGGAATCTAACTCAGCGGAAT
TGTATCCGTTACCT

Sequence 1562

GGGCGNGTTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCTTCTGCCTTCCCCATATA
CTGAAGTTTGAGAGGCTGGGAAGGTGCGGAATGGGAAAAGGAGCAGCTGCTTATGTTGAG
TTTAACATTCTCTGGGTTTCTCCATCTAGGTCTTGAGTTCATTCTCTTCTGCTCTTTG
GCTTCTTGTTTAACTGGTCCCTGTTTCAGGAGAGAAGCCTCATCAGTGCCAAGTCTGT
GGGGAAGACCTTCTCTCAGAGTGGAAGCAGGAATGTGCATATGAGAAAGCATCACCTGCA
GCTGGGAGCAGCTTGGGAGTCAAGAGCAGGAGCAAAGTCTGAGCCACTAATGGGGCAGT
AGTTTGCTTG

Sequence 1563

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCTTCGTAAACCATGGAGAGC
CAGCCCAATGCACAGCAGTGGATATCATCTTCTCAGAGTCCAGTATCACAGAATCACGA
CTTTGTCCAGCTGCAGGTGCCTGCAGGTCACTGGCTAACTACTTTGTGATGGGCTCTT
CTTCTGAGGTTCTGCCAACTTGTCTACTACATAGGGTTGATCATCCTGTTTCAGGAAATA
TTTCTTTCAATTGCTCTGAGCTTAATATTGTAATTTGATTTGATCTGCTGGGTCTTTGG
AGTCAGGACTGGTTTTATCAGCAGTTTGTCTTCTGAGGTCTGGTATGTAGTTTGCTGGC
CCACAGAACCTTACGTGTATTACAGCCTCAATGCCATAAGGAACTCTTTTAGAAGTT
CTGACAGCTGGTCATGTAGGTATAAGACAGGTGCCTTATCACTGTGGATTTCATTTCTTG

Sequence 1564

CCGCGGTGGCGGCCGAGGTACAAATTGTCGTTTTTATTCTCTTATTGGGATATCATTTT
AAAACTTTATTGGGTTTTTATTGTTGTTGTTTATCCCTAACCTACAAAGAGCCTTCC

TABLE 1

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TATCCCCCTCGCTGTTGGAGCAAACCTTATACCTTACTTCCAGCAAGCAAAGTGCTTTGA
CTTCTTGCTTCAGTCATCAGCCAGCAAGAGGGAACAAAAGTGTCTTTTGCATTTTGCCG
CTGAGATATGGCATTGCACTGCTTATATGCCAAGCTAATTTATAGCAAGATATTGATCAA
ATATAGAAAAGTTGATATTCAACCTCACAAGGGCTCTCAAAGTATAATCTTTCTATAGCCA
ACTGCTAATGCAAATTAACATATTTTCAATTTAACATGATTTCAAATCAGTTTTTCAT
ACTACCCCTTTGCTGGAAGAACTAAAAATATAGCAAATGCAGAACCAACAATTGAA
TGGGGTAGAAACATTGTAAATATTTACTCTTTGCAAACCCTGGTGGGTATTTTATTTTGG
CTTCATTTCAATCATTGAAGGTATATTTCTATTGAAAATGTACCTGCCCNNGCCGCGCCG
TCTAGAACTAGTGAATCCCCNNGC

Sequence 1565

ACTACTATAGGGGCGAATTGGAGCTCCACCCGCGGTGGCGGCCGCCGCGGCAGGTACTTT
TTGGTGTTTTTTGGAAAAGTTACATTTAGATCTATTCTGAAGCTGTTCAATTTTAAACAA
TAAATGTTACAGGTTTCACATGATTTATTCGCAAAAAAAAAAAAAAAAAAGTACTGT
CTGTGAACAGCAAGGAAAATATGATTACACCTAAGAGATGAAATTGGCATAGGCGAGAAG
TCAGAAAAATAATCTATACAGCTTGCATGGTTGGGGAGTTAGGAGAGGCCAAGGCCACGT
GCACGTAGAGCAAGAGGTAGAAGAGGCCCGGGGCTAGAGCGCACCCCTGGTGGATAGTGT
GAGAATTTCACTGGCTCAAGCCTTGAAGACCACCCAGGGGTGCGCCTTAGCAACGCA
CTTATGCAAGACCCCAACAACTGGCCCTTGAAAGGAGCTTTTCACTGGTGGGATGTGGCC
CTGCTTGATTTCAGAACCATAGTTTAAACAAGCCANCATTAAATCCACAAGTCTTTGCCA
AAGCACTTTAAGCCTNTTGACATTTATTGGAATTAATTTACCTGCAAGGAAAGTTTCATAT
ATCTAGCTTTGGTAACCCTACATTCGGGAAAAATGTTTCCATGANATAACTAAAAANCCCC
ATGAATGATACAATCTTGACAAAAACCCAAAGNNGGCATAATTAGCATAAACTCCAAAT

Sequence 1566

CCCGCGTCCGGCATCTCCCAACGTGACTGACCCGCCGACCACGACCCGCAAAGTGGTCCC
GACGACGCTCACCACCACCAAGCCGCCAGAAACCTGTGAGAGCTTCAACAGCTGTGTTTC
CTGTGTCAACGCCACCTTGACTAATAATATTACCTGCGTCTGGCTAGATTGCCATGAAGC
AAATAAGACCTATTGTTCAAGTGAATTAGTAAGTAATTGTACCCAGAAGACCAGTACTGA
CTCCTGTTCTGTAATACCTACCACCCAGTGCCAACCAATTCTACAGCTAAGCCTACAAC
TCGGCCTTCTCTCTACACCTACTCCCTCAGTTGTCACATCAGCAGGTGCAACAAATAC
CACTGTGACTCCAACCTCACAGCCTGAGCGGAAGTCCACCTTTGATGCAGCCAGCTTCAT
TGGAGGAATCGTNCTTGTCTTGGGTGTGCAGGCTGTAATTTCTTTCTATAAATTCTG
CAAATCTAAAAGAACG

Sequence 1567

TCGCCNCGCGTCCGGGCAACTGCAGTTGGAAAAAAGATTCAACTTCAAAGCAGAGGATT
TTTGATGAAGAACCAGCTAATGGAGTGAAGATAGAAAGGTTTACAAGGGATGATCCTTGG
TTATCTTCATGTGAAGAAGTGGATGATTGTAAAGACCAGTTGGAGAAGCAACAGGAAAA
CAAGAGATACTTTTGCAGGAAGTGGCATTCACTCAAAGGAAAGCAGTTATTCATGAGAGA
GTCTGCAAAAGTGATGAAACTGGGGAGAAGAGTGGTCTGAATTCCAGTCTATTTTCATCC
CCAGTTATACCCATAAGAAACCATTTTCATAAACATGTATCACATGCTAAAAAATGGCAT
CTTAATGCTGCTGTAAACAGTCATCAGAAGATTAATGAGAATGAGACACTATATGAAAT
AATGGAATGTGGAACCCCTCAGAGCATTACCTTATTCAGTTTACAAGAACCTCAAA
CA

Sequence 1568

GCTCCATGCCCTTCTCTGAGACGGGGACCAGGGGATGGCAGNCATGCACCTGACAGCCTG
GCCCNAGAAGTCGGTGACCTTTGAGGACGTGGCTGTGTACTTCACCCAGGCGGAATGGGA
TGGCCTGTCCCTGCACANAGGACCCTGTACAGGGATGNGATGCTGGAGAATTATGGGAA
TGTGGCCTCCCTGGGATTTCCACTTCTCAAACCTGCTGTGATCTCACAACCTGGAGGGAGG
AAGTGAGCTGGG

Sequence 1569

CGCGTCCGTTTCTCCTGGCACCCCTGTATTCATGGCCTTGGCGTTCTGCCTCTGCATGGCT
GAAGCCATCCTACTCTTCTCACCTGAACACTCCCTGTTCTTCTTCTGCTCCCGAAAAGCA

TABLE 1

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CGGATCCGGCTCCACTGGGCAGGGCAGACCCTAGCCATCCTCTGTGCAGCTCTGGGCCTG
GGCTTCATCATCTCCAGCAGGACCCGCAGTGAGCTGCCTCATCTGGTGTCTGGCACAGC
TGGGTGGGAGCCCTGACACTGCTGGCCACTGCTGTCCAGGCACTGTGTGGGCTCTGCCTC
CTTTGTCCCCGGGCAGCCAGGGTCTCAAGGGTGGCTCGCCTCAAGCTCTACCATCTGACA
TGTGGACTGGGTGGTCTACCTGATGGCTACAGTAACGGTGCTTCTGGGCATGTAICTAGT
ATGGTTCCAGGCCCAGATCAAAGGTGCGGCCTGGTACCTGTGCCTG

Sequence 1570

CGTCCGCTAAGTTCCAATATTGAAAAATCTGTAAAAGACCTCCAGCGCTGCACAGTGTCT
CTTGACCGGTATCGAGTTGTAGTTAAAGAAGAGATGGATGCCTCCATTAAGAAAAATGAAA
CAAGCCTTTGCTGAATTGGAGAGCTGTTTAATGGATCGAGAAGTGGCGTTGCTTGCTGAA
ATGGACAAAGTGAAAGCTGAAGCAATGAAATTTTGTCTAGCCGACAAAAGAAGGCTGAA
CTTCTAAAGAAGATGACTCATGTGGCTGTTCAAATGTCAGAGCAGCAA

Sequence 1571

GCAGCCGGCCATGCAGGCCGTATCCGAAGTACATGGACCAAATTATCACCTCCAAGGA
GCACCTTGCCAGCAAGATCCGAGCCTTCATCCTCCCAAGGCAGAGGTGTGCGTGCGGAA
CCATGTCCAGCCCTACATCCCATCCATCCTGGAGGCCCTGATGGTCCCCACCAGCCAGGG
CTTCACTGAGGTGCGAGATGTCTTCTTCAAGGAGGTACGAGCATGAACCTGAACGTCAT
CAACGAGGGCCGCGCATTGACAAGCTGGGCGAGTACATGGAGAAGCTGTCCCGGCTTGGCG
TACCACCCCTGAAGATGCAGAGCTGCTATGAGAAGATTGGAGTTCGCTGCGACTGGACG
GGCTGCAGC

Sequence 1572

CCGAACAANGTGGCCACCCAGGTTTTTAACCCAAGTCTAGTGGTCATCCTATTCTTTCCA
CACCAACATGCCAAAAGCCTTACCTNGAAAGAAAATATAATTTGCAAGAAGCATCACAGT
GCCGGGGTCTATATTCTCGATCAGGTTGNTAATTTTCCCATGGGTTTTTGAAGTATAAA
GNCATTGATCTGCTTCTGAGCCATTTCCAAATTCTGAAAGTTGGTAAGGATGGTTTCGGN
ACTGTAAAAGTTCTTGGCATCTTCC

Sequence 1573

CGCGTCCNGNCGGAGAAGACAGTAGGGATACTGGATATGGGAGGAGCCTCTCTCCAAAT
TGCTTATGAAGTTCTACCTCAACCTCTGTCTTCTGCAAAGCAGGAAGAAGCTGCCAA
GATCCTGCTGGCTGAGTTCAACCTGGGCTGTGATGTGCAACACACTGAACAGTGTACAG
GGTTTATGTCACAACTTTCTGGGTTTCGGAGGCAACTTTGCCCGGCAGCGCTACGAAGA
CCTTGTTCTGAATGAAACTCTTAACAAAAACAGATTGCTTGGTCAGAAGACAGGTCTGAG
TCCCGACAATCCATTTCTGGATCCCTGCCTGCCAGTGGGACTCACAGATGTGGT

Sequence 1574

CGCCGTCCNGTTTACTTGGAGTGTCAAAACTGCAAGCAGTAGAGAAATAAGACAAGCTT
TCAAGANNNTGGCATTGAAGTTACATCCTGATAAAAACCCGAATAACCCAAATGCACATG
GCGATTTTTTAAAAATAAATAGAGCATATGAAGTACTCAAAGATGAAGATCTACGGAAAA
AGTATGACAAATATGGAGAAAAGGGAAGTGGAGGATAATCAAGGTGGCCNGTATGAAAGCT
GGAAGTATTATCGTTATGATTTTGGTATTTATGATGATGATCCTGAAATCATAACATTGG
AAAGAAGAGAATTTGATGCTGCTGTTAATTCTGGAGAACTGTGGTTTGTAATTTTTAC

Sequence 1575

GAGGCGCTCAACCTACCGAGGCGCCCAACCTGTCCGGCCTGCTGGGCTTGTCCCTGCG
CTACAACAGCCTCTCGGAGCTGCGCGCCGCGCCAGTTCACGGGGTTAATGCAGCTCACGTG
GCTCTATCTGGATCACAATCACATCTGCTCCGTGCAGGGGGACGCCTTTCAGAAACTGCG
CCGAGTTAAGGAAGTACAGCTGAGTTCCAACCCAGATCACCCAAGTGCACCAACACCACTT
CCGGCCCATGCCCAACCTGCGCAGCGTGGACCTCTCGTACAACAAGCTGCAGGCGCTCGC
GCCCGACCTCTTCCACGGGCTGCGGAAGCTCACACGCTGCATATGCGGGCCAACGCCAT
CCAGTTTGTGCCCGTGGCATCTTCCAGGACTGCCGCGAGCCTTCAAGTTTCTCGACATCG
GATACAATCAAGC

Sequence 1576

GACCACGCGTCCGCGCACCCTTCATTGAGGCTGCAAGAGCACACGGGCACCCACGTGCT

TABLE 1

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GGTCCACTGCAAGATGGGCGTCAGCCGCTCAGCGGCCACAGTGCTGGCCTATGCCATGAA
GCAGTACGAATGCAGCCTGGAGCAGGCCCTGCGCCACGTGCAGGAGCTCCGGCCCATCGC
CCGCCCCAACCCCTGGCTTCTGCGCCAGCTGCAGATCTACCAGGGCATCCTGACGGCCAG
CCGCCAGAGCCATGTCTGGGAGCAGAAAGTGGGTGGGGTCTCCCCAGAGGAGACCCAG
CCCCTGAAGTCTCTACACCATTCACCTCTTCCGCCAGAACCTGAGGG

Sequence 1577

CTACACTCAACTTCACCATCTCCAATCTCCAGTATTCACCAGATATGGGCAAGGGCTCAG
CTACATTCAACTCCACCGAGGGGGTCTTCAGCACCTGCTCAGACCCTTGTTCCAGAAGA
GCAGCATGGGCCCCCTTCTACTTGGGTGCCAACTGATCTCCCTCAGGCCTGAGAAGGATG
GGGCAGCCACTGGTGTGGACACCACCTGCACCTACCACCCTGACCCTGTGGGCCCCGGG
TGGACATACAGCAGCTTTACTGGGAGCTGAGTCAGCTGACCCATGGTGTACCCAACTGG
GCTTCTATGTCTGGACAGGGATAGCCTCTTCATCAATGGCTATGCACCCCAAGATTTAT
CAATCCGGGGCGAGTACCAGATAAAATTTCCACATTGTCAACTGGAACCTCAGTAATCCAG
ACCCACATNCTCAGAGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACAC
TTTTACAAAGGCAGTCAAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGAC
GATGGACTTCCGTGTTGGTCACTGTCAANGCATTGGTCTTCTCAATTG

Sequence 1578

GCGGCCGCCGGCAGGTACCTAACCTACCTTTAAGACTGGGATAACTATTGNNNTNCAAT
AGNTTATACCGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGGAGCTTCACAGC
TTCACCTAAAAATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATGGCCTACCAAGA
CGATGATGTTTAGCCGGGCCGAGAGGCTGTACCT

Sequence 1579

CTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCTAACCTACCTTTAAGACTGGGATNTCT
ATTGNTAACAATAGCTAATACCGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGG
AGCTTCACAGCTTCACTTAAAAATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATG
GCCTACCAAGACGATGATGTTTAGCCGGGCCGAGAGGCTGTACCT

Sequence 1580

CTCCCCGCGGTGGCGGCCGAGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGT
AGGCCNTTNCCTACCACTAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCTGTGA
AGCTCCTTTCTATTACTCATCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTT
CAATAGTTATCCAGTCTTAAAGGTAGGTTAGGTACCTGCCCCG

Sequence 1581

TTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTAACCTACCTTTAAGACTGGGATAACTA
TTGTTNAACAATNNCTAATACCGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGG
AGCTTCACAGCTTCACTTAAAAATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATG
GCCTACCAAGACGATGATGTTTAGCCGGGCCGAGAGGCTGTACCTGCCCCG

Sequence 1582

AGGTACAAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGNTAGGCCNTTACCCTACCAA
CTAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCTGTGAAGCTCCTTTCTATTACTC
ATCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTCCAATAGTTATCCAGTCT
TAAAGGTAGGTTAGGTACCTGCCCCG

Sequence 1583

CCGCGGTGGCGGCCGAGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTTTTNGGC
CATTACCCTACCACTAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCTGTGAAGCT
CCTTTCTATTACTCATCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTTCCAAT
AGTTATCCAGTCTTAAAGGTAGGTTAGGTACCTGCCCCG

Sequence 1584

TCTTCGANACGNTTCGGGCGGCTTTTCCCCGGGCAAGGCTTCTAAATCGGGGGGGCTTC
CTTTTAGGGGGTCCGAATTTAAGTGGCNTATAACGGGCANCTTCGAACCCCCAAAAA
AACTTTG

Sequence 1585

TABLE 1
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AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTNNGTAGGCCATTACCCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTCCAATAGTTATCCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCGG

Sequence 1586

[illegible]

Sequence 1587

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGTAGGCCATTACCCCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCAGTGCTT
AAAGGTAGGTTAGGTACCTGCCCGG

Sequence 1588

CGGGCAGGTACCTAACCTACCTTTAAGACTGGGATAACTATTGGAAACAATAGCTAATAC
CGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGGAGCTTCACAGCTTCACTTAAA
AATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATGGCCTACCAAGACGATGATGTT
TAGCCGGGCCGAGAGGCTGTACCT

Sequence 1589

TACCNCGCGTCCGGGGCCCCGGATGCTGGGGGCCACCAGGGCCCCGGGGATGTGCTGGTCT
TCATGGATGCCCACTGCGAGTGCCACCCAGGTTGGCTGGAGCCCCTCCTCAGCAGAATAG
CTGGTGACAGGAGCCGGGTGGTATCTCCGGTGATAGATGTGATTGACTGGAAGACTTTCC
GGTATTACCCCTCGAAGGACCTGCAGCGTGGGGTGTTGGACTGGAAGCTGGATTTCATT
GGGAACCTTTGCCGGAGCATGTGAGGAAGGCCCTCCAGTCCCCAATAAGCCCCATCAGGA
GCCCTGTGGTGCCCGGAGAGGTGGTGCCATGGACAGACATTACTTCCAAAACACTGGAG
CGTATGACCCTCTTATGTCGCTGCGGGGTGGTGAAAACCTCGAACTGTCTTTCAAGGCCCT
GGCTCTGCGGTGGCTCCGTTGAAATCCTTCCCTGCTCTCGGGTAGGGCACATCTACCGAA
ATCAGGATGCCCCGTCCCGTTTGACCAGGAGGCCACCTTGAGGAACAAGGTTGCGATTG
CTGAAGACCTGGCTTGGGGTCA

Sequence 1590

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTGATATCCACATATTTTTGAG
AAAAATTCCCAAGCCAGGCGAATGTGGATTGGAATAAGACATAGGCAGTGTATACCACC
ATAGCAATAATGGTTAGTAAGATGGTGTTAAACATAGATCGCTCCCAGGGCTCTAAAAA
GCACAGCAGCTAATGATTTGGTATTGATAGTAGAGCCAGGAGAAATATTCCTTCACACGC
CTCAAATCCATGGTTGGCTCCTTCAAGCTGCAGTAAGTTTGTCTAAGAAAGTCCAGGTC
TGGTTCCTCAGCCTTGCTCCTTC

Sequence 1591

CCCTTCGAGCGGCCGCCCGGGCAGGTACATTTTGAATATCAATTTCTAAATATTTACCC
AAAAATGTATATTTAAAGTTTTTAAACAATCTTTTCAATCTTGAAAAAGTTCCTCATTT
TTTTCTTTTAAAATCCCATAACAATCAATGGTTCTTTTAAAATAGAATAAATATTTTTT
TGTCCTATTTAAAGAAGAAATATGGATCTTTGGAAAAATCATTTGAATATTTTTTCTTAAAAAT
AGATTTTGTATTTTGTAAATTTGTTTCCAGAAATAAATCATCTAATAAAGTAACTTGA

TABLE 1
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CCACCGTAAGATTCATATAATCTAATCAAAGATCTACCAACTGGTTGTTTTACCCTGGAT
CCAGATTCACCAATTAACCTAAAATTTTCCTTGTTGGATCTAAAATTTTACCGTTATC
AACAGCTTTGACAACCCAAANTTATTGGAATAATTTTTTAAGCTTTGAACTTTTAAG
GGTGGGTTAACTTGCATTA

Sequence 1592

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGG
GTTTCCCTGCTATGTTTTGTCACACATCATTGCTGGGAGAGTTCAGTGCTATCCAAGTGA
CTCCCCGGGGAGAGGACAACCTGGAAATTTATGCCTGGTGTCTTCTGGACTCCGACCTAT
GCACCTTTTTCTTGGATGATTTTAACCTGTCTCCTTTTGTGCAATGAACCATAACCAT
GAGTATATCAGCTTTTCTAATTTTGTGAAGTCCCTCAAGTGAATTATCAAACCTAAGGG
TAGTTTTGGGGACCCCCATCACAGAAGAGGTCAAACAGGGGGCAGG

Sequence 1593

CCGCGGTGGCGGCCCGCCCGGGCAGGTCTCTGTCTAGTATACTCAAGGCAGCCTAGTAA
ATTATTATTTATCTATACAATACTGGAAAACTTGTAGACAAAAACATGACTTGAATTGC
TAAAAAAAAAAAAAAAAAAGAGGGAGAATGAAAACCTCCGGACGCGTGGGTCTGAAGCTT
GACCT

Sequence 1594

CCGCGGTGGCGGCCCGCCCGGGCAGGTAGGCTGTCTACACTGACATCATCCAGGGCAAGCT
GGACCAGCGAAACCAGCTGCTGGAAGTGGATTTCTGCATTGGCCGTGACATCCGAAAGAA
GGATATCAATAATATTGTCAAGACCCTGCATGAATGGTGTGATGGCTGTGAAGCAGTTCT
ACTGGGCATNGAGCAGCAAGTTCTGAGAGCCAACCAGTACCTT

Sequence 1595

CCGCGGTGGCGGCCCGCCCGGGCAGGTTTTTTTTTTTTTTTCTTTCTGTTCTTGGACTA
GATAATCTGAAATCAACTGTCTTCAGTTTTGCAGACTCTTGTGCCAGCTAAAATGTTCTG
TTGAGCCCCAGAAGCTAATTTTCTTTTCAGTTATTATGATTTTCAGCTTTAGAATTTATT
TTTTAATATAATTTCTACCTCTTTTTATATTCTCCATTTGGTGAGACATTCACATACT
TTCTTCCAGTTTTTTTAGACGTAGTTTCTTGGAGTTCTTTGAGCATATTTAAATAGTT
GATTTAAAGTATTTGTCTAGTTACTCCACCATCTGAGTTTCTCAGGGAAAATTTCTATT
GCCTCCTTTTTCTGTGTGTGGTCCGNCCATACGGACGCGTGGGTCTGAAGACCT

Sequence 1596

ACTTNNNTTTTTTTTTTTTTTTTTTTTAAAGCGCCCGGCATTTTCTAAATAAAATCATTT
TATTTGGNAAAAGGGTTTTAACAGNTATACCTTTCTAGCTAAAAGAAAAGAAATAGCGGG
ATGTACCT

Sequence 1597

AGGTACGAAGAGAAAGGAATCAAAGCCTACTANCTCAAAAAATTGTCAAATTGCAAATGA
GGACATCTAGAGAGGAAGAAAGGAAAAAAGGAACTAAAAACAGAAACAATTAACAGTAA
GTTCTTAACATATCAATAATTATTTTAAAGTAAATAGATTAAATTATCTAATCAAAAGAC
ATTGAATGGCTGAATGGATTAACAAAGATCAACTATACATTGCCCATCAGAGATTCA
TTTTAGCTTTAAGGATAAACTGTTGAAAGTGAAGGCTGAGGCTGGGCATGGTGG
CTCATGTCTATAATTCCAGCACTTTGGGAGGCCAAGGTGGGCAGATAATCTGAGGTCTAGG
AGTTTGA

Sequence 1598

CCGGGCAGGTACCACCTGAAGACCCTCACACTCAACTTCACCATCTCCAATCTCCAGTAT
TCACCAGATATGGGCAAGGGCTCAGCTACATTCAACTCCACCGAGGGGGTCTTCAGCAC
CTGCTCAGACCCTTGTTCCAGAAGAGCAGCATGGGCCCTTCTACTTGGGTTGCCAACTG
ATCTCCCTCAGGCCTGAGAAGGATGGGGCAGCCACTGGTGTGGACACCACCGGCACCTAC
CACCTGACCCTGTGGGCCCGGGCTGGACATACAGCAGCTTTACTGGGAGCTGAGTCAG
CTGACCCATGGTGTACCCCACTGGGCTTCTATGTCTGGACAGGGATAGCCTCTTCATC
AATGGCTATGCACCCAGAATTTAT

Sequence 1599

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACACAGGACCAATGCTGCC

TABLE 1

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CATCCACATGGAATTTACAAACATTCTACAGCGCAAAAGGCTCCAGACTTTGATGTCAGT
GGATGATTCTGTGGAGAGGCTGTATAACATGCTCGTGGAGACGGGGGAGCTGGAGAATAC
TTACATCATTTACACCGCCGACCATGGTTACCATATTGGGCAGTTTGGACTGGTCAAGGG
GAAATCCATGCCATATGACTTTGATATTCGTGTGCCTTTTTTTATTCGTGGTCCAAGTGT
AGAACCAGGATCAATAGTCCCACAGATCGTTCTCAACATTGACTTGGCCCCACGATCCT
GGATATTGCTGGGCTCGACACACCTCCTGATGTGGACGGCAAGTCTGTCTCAAACCTTC
GGACCCAGAAAAGCCAG

Sequence 1600

TCNCCGCGGTGGCGGCCGCCCCGGGCAGGTACGTTCACTGTCTCATATAATCNCAGCCTCC
TGTGTGATAGCTGGTGTCTCATCTCCACTTACAGATGAGGAACTGAGGATAAGCAGGGTTG
AATAACTTGCTCGAGATCACAGAGCCACGGGTGGNGAAACAGGATACAAACCTGGTTCTG
TTTGA CTCTAAGACCATT CATNTTTCCTCTGAAACTCAGTATTGCACAGTGTAGAAATGC
AGTTTTTAAGACCTCCCAAAGTGACGTGCTGNGTCACTGCCATCATTAGCTANATTGAG
TAAATTGCTGCTTAGCCCCANTTGTGTTTGACAGAATCAATAGCCCTTGCTGAGGGGCCAN
CAGCCTACGGACACAGGAGCATGCTTCATGGGCAAGACCACCATGCACACTCAGAGGGGA
AGCCACAAGGCAACCTCCACGCCACTTAAGATTTGTAGGGCTCTGAACACATCACCAGAT
ACAGACCACCTACTTATTTTTTNCCTGTAATANCAAAGGCAGGAATCTTTTTNCTGTAG
GGTAAAGTTTGGGGG

Sequence 1601

GGCAGGTACAAGGCCCCAAAGAGGAGGAATTCCTTG TAGAGGAGCTTG TAGATGCTTCCC
CTCCAGCGGAGAAGCAGGCCAGAGAAACCTCCGAAGCGGGCCTCCGCCACTTTGAGAGTG
TATGAAACCGTCATGGTGCTGGGAGCCTGGGGCAGGAGGTCAAGAGTTGCCCCAGGG
CTGTCGTTTAGTTCTCCAGACAACCTCCCTTCACTCTGGTCTCCACACCCAGCCTTCA
CCCTGCGTCAAGTGGACAAG

Sequence 1602

AGGTACCAGTGGGGACTTCTGAAAGAACNNTACTNGTGTGTCAGTGGAAAAGCTGGCATTTT
GGGAAATGCTGGTCTCTCAGTCCAGGAGTCAAGGAATATGTTGACTCTCTTAATTT
TTGTAGTCTCAGAGGAAACAGACATTGATGTGGAAACAGTTGTATGCCCCATGGTGGAGG
TGGTATCCATNGGAGCTGTGGCCTTGGTTTTTCTGAGTCAGCTAGGACAGAGGATTGTG
ACCCATGTCCAGAACTGGTGGTTTCCACATTAGTCGCTGCTGTGCTTGTGGAAGGATGCA
TGGCTTCTATAGCTGTGGTGTCTTCATCTGTTGTCAGTATCTCATGTGAGGNACCTGCCC
G

Sequence 1603

CCGGGCAGGTACTGTGATATCCACATATTTTTGAGAAAAATTCCCAAGCCAGGCGAATGT
GGATTGGAATAAAGACATAGGCAGTGTATACCACCATAGCAATAATGGTTAGTAAGATGG
TGTTAAACATAGATCGCTCCAGGGCTCTAAACAGCACAGCAGCTAATGATTTGGTATT
GATAGTAGAGCCAGGAGAAATATTCCTTACACGCCTCAAATCCATGGTTGGCTCCTTCA
GGCTGCAGTAAGTTTGTCTTAAGAAAGTCCAGGTCTGGTTCTTCAGCCTTGCTCCTTCG
GAAATGATCCTGTGTGGGTTAGTTCTCCTCTCTGGGTTGCTGTTTCCTCA

Sequence 1604

AGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACCACCTGAAGGCCCTCACACTC
AATTCACCATCTCCAATCTCCAGTATTCACCAGATATGGGCAAGGGCTCAGCTACATTC
AATCCACCGAGGGGGTCTTCAGCACCTGCTCAGACCTTGTTCAGAAGAGCAGCATG
GGCCCCCTTCTACTTGGGTGGCAACTGATCTCCCTCAGGCCTGAGAAGGATGGGGCAGCC
ACTGGTGTGGACACCACCTGCACCTACCACCTGACCCTGTGGGCCCCGGGCTGGACATA
CAGCAGCTTTACTGGGAGCTGAGTCAGCTGACCCATGGGTGTCACCCAACTGGGCTTCTA
TTGTCTGGACAGGATAGCCTCTTCATCAATGGCTATGCACCCCAAAATTTATCAATCC
GGGGGCGAGGTACCTGCCCGGGCGGCCGCTTAAACTAGGNGGGATCCCCCNGGCTTG
CAGGAATTTGATATTCAAGCTTATCGATACCCGTCCNACCTTCGAGGGGGGGG

Sequence 1605

CCGGGCAGGTACCACNTGAAGACCCTCACACTCAACTTCACCATCTCCAATCTCCAGTAT

TABLE 1
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TCACCAGATATGGGCAAGGGCTCAGCTACATTCAACTCCACCGAGGGGGTCTTCAGCAC
CTGCTCAGACCCTTGTTCCAGAAGAGCAGCATGGGCCCCCTTCTACTTGGGTGCCAACTG
ATCTCCCTCAGGCCTGAGAAGGATGGGGCAGCCACTGGTGTGGACACCACCTGCACCTAC
CACCTGACCCTGTGGGCCCCGGGCTGGACATACAACAGCTTTACTGGGAGCTGAGTCAG
CTGACCCATGGTGTCACCCAACTGGGCTTCTATGTCCTGGACAGGGATAGCCTCTTCATC
AATGGCTATGCACCCCAAGATTTATCAATCCGGGGCGAGTACCT

Sequence 1606

CGGCCGCCCGGGCAGGAACNNNTTTTTGGGGGGGGGAAAACCNAGACGGAGCCNCGCN
CAANGGCCAGGCGGGAGTGNAAGGGCACCAGGGGGGGCNCACCACAAANACCGCCGCC
GGGNGAAAGCCACNCNCCGGCCNAGCCNCCGGAGNAACGGGGGGAACAGGGGCAGGCCA
TTTTTTTTTTGNGGGGGGNGNANGGGGNGGANNCCNCCAGGNAAAAANCANGCNGGCCA
GGGGGGGGGGAACNCNGACCTNATGANGCACC CGCCNNGGNCNCCAAAANGCGGGGA
NNANAGGGGNGAGCCACCGNGCCNAGCNGACGG

Sequence 1607

CGAGTTACCAGAAGGAGAGATCACCACCATCGAGATCCACCGCACTAACCCGTACATCCA
GTTAGGAATCAGCATCGTTGGCGGCAATGAGACGCCACTGATCAACATCGTNATTCAGGA
AGTNTACCGGGATGGGGCCATCGCCAGAGATGGAAGGCTCCTTGCCGGAGACCAGATTCT
TNAGGTCAACAACTGTGATATCATGCAACGTGTCCATAACTACGCCCGGGCTGNCCTTT
CCCAGCCCTGCAGNACCCTGCACCTGACAGNGCTTCGGGAGCGGCNGCTTNGGCAGTCGT
GCAA

Sequence 1608

CGAGCCTTTAGATGGCGTCTCCTCAGGGGGGCCAGATTGCGATCGCGATGAGGCTTNGGA
ACCAGCTCCAGTCAGTGTAAGATGGACCCGCTACGGAACGAGGAGGAGTTTCAGTGTA
AGATCAAAGACTTGAATGAACACATTTGTTTGCTGCCTATGCGCCGGCTACTTNGNGAT
GCCACCACCATCACAGAGTGTCTTCATACTTTCTGCAAGAGTTGTATTGTGAAGTACCTN
CAAAGTAGCAAGTACTGCCCCATGTGCAACATTAAGATCCACGAGACACAGCCACTGCTC
AACCTNAAACTGGACCGGGTCATGCNNGGACATCGTGTATAAGCTGGTGCCTGGCTT

Sequence 1609

GCGTCCGACGTCCCCCAGGAGAATGGTAGACACAGATGAGGAAATTGTGGAGATGGGCAC
AAACCGCAAGGTGAAGAAAACGAACAAACACCGAGTTGATACGGATAGTCCCCGTTCCCC
TGAGGGCCGACCCCGTGAATCCCGATGAGCGTCCAGTTGCGCCGGGCATCCCTGGGCCTC
CCAGCGTCTTTCCCGGAGGTTTCATCGCCGACGGCGGAAAGCGCTCTCGGTTCCGCTTTC
CGGCCCCAGCCTCCCGGGCGCCCTCGCGCGGCGGCTAACGCTGGTCTCGGCCGGGCGCG
CTGACGTCATCGTGCATCAGAGTGAGCCCGGATGGGGCGGCGGGCTTCGGGAGCGCCCGG
GCTGATCCGAGCCGAGCGGGCCGTATCTNCTTGTGCGCGCCGCTGATCCCGGCTCTGCG
GAGGCCTCTAGGCAGCCGCGCAGCTTNCGTGTTGCTGCGCCGCACTGCGATTACAAC
CCTGAAGAATCTTCCTATCCCTAT

Sequence 1610

CGCGTCCGGCGGGCGGGCTGAGGAGGGCCCGGCCTGCGAGAGCCTCAGTGGGAGCCGGC
TCAGCCCTCGGCCACCATGTCGGCGCCGTCGGAGGAGGAGGAGTACTGCGCGGCTGGTGA
TGGAGGCGCAGCCGAGTGCTGCGCGCCNAGGTGAAGCGGNTGTCCACGAGCTGGCCG
AGACCACNCGTGAGAAGATCCAGGCGGCCGAGTACGGGCTGGCGGTGCTCGAGGAGAAGC
ACCAGCTCAAGCTGCAGTTTCGAGGAGCTCGAGGTGGAATGAGGCTATCCGAGCGAGA
TGGAGCANCTCAAGGAGGCCTTTGGACAAGCACACAAAACCAAGAAGGTGG

Sequence 1611

CGCGTTCGAGTCTGGAGACGACGTTNCGAAATGGCACCTCGCAAAGGGGAACGGAAAAGA
AGGAATGAACAGGTCATCAGCCTTGACCTCAGGTGGCTGAAGGAGAGAATGTATTTGGN
GTCTGCCACATCTTTGCATTCTTCAATGATACCTTTGTCCATGTTANTGAACCTTCTGGC
NAGTGAGTACTTCAGAAAGGCATNAAACANGCCTCAAAGGGAC

Sequence 1612

CCCCGCGTCCGCCACGCGTCCGGGCTCGGCTGCACCGGGGGGATCGCGCCTGGCAGACC

TABLE 1

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CCAGACCGAGCAGAGGCGACCCAGCGCGCTCGGGAGAGGCTGCACCGCCGCGCCCCCGCC
TAGCCCTTCCGGATCCTGCGCGCANAAAAGTTTCATTTGCTGTATGCCATCCTCGAGAGC
TGTCTAGGTTAACCGTTCGCACTCTGTGTATATAACCTCGACAGTCTTGGCACCTAACGT
GCTGTGCGTAGCTGCTCCTTTGGTTGAATCCCCAGGCCCTTGTGGGGCACAAGGTGGCA
GGATGTCTCAGTGGTACGAACCTTCAGCAGCTTGACTCAAAATTCCTGGAGCAGGTTACCC
AGCTTTATGATGACAGTTTTCNCATGGAAATNNGACAGTACCTGGCACAGTGGTTAGAAA
AGC

Sequence 1613

GTTNAGTNGAAGTTCTCTACCATTTGAATCAGTGAAGTAGAAAGATCTGATTTGGCCTGGG
ACCAAGTGTCAAGTTGGTTGGTCTTTATTAATAATCACAATATTCGAAAACAAAAAA
CCTAGGAGATAAATGTAGAGGTATTGACTTTTCGTATCTTTTATCTTCACACTGAAACAA
GAGCTATCCTATTTGATTATTAAGTGAGCTATGTGTTAAGTGCCAGGACATTTCTAGCT
TTTGTGAGAATGTGTCTACATATGAGTATAATAAACCCACATGTATACACAATTGTCTCT
TATGTAATCCTACCTGGCAGGAGTCTTTG

Sequence 1614

CGCGCCGGTGGTGGCATCTCGGCTACTGCAACTTCAGCCTCCTGGATTGAGGCAACACTC
CTGCCTCAGCCTCCACGTGGCTGGGATTACAGGTGCCTGCCCCATGGCTAATTTTTTG
TATTTTTGTAGAGATGGGGTTTCACCATGTTGGCTGGGCTGGTCTCACTCTCCTGACCT
CAAGCAATCTGCCTGTCTCAGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCC
CCCAGCCTGAGCCTTTTTTTTTTCTAATGCATCCAAGGTTAAGGGGAAGACGCAATAA
CAGGACTATTCTAAAAGGAAACCTGTTTGAAGTCTGTGAGATCAAGTCATCAGTCTCAGT
ATTNCACAGGCACACCTTAATTTTATTGGTAAAAGATATATATTTTTGNCTATTTTTGN
GCTTTTGGGGGCTATTTTGNCTTTTTTACCTTTAATGNAAGAAGANCTTAATACCAA
GTGGATTTTTTACCA

Sequence 1615

TCGCCNCGCGTCCGTAGAACTCACACTAGACACACGCGAGTAGTCATACGTCTTCACACG
GTTTAGGAGCTACTGGACCAACATTCTGTTTTTGCTTTTGTTTTTTAAATAATTCTAG
TCTGGAGCTAACTGTGGAGCAGCCAAATAGTAGCTGGCATGTTGATTCAAACCATGGGCT
GAATTTGCTCATAGGCTGTGCATCAGACAAAAGCTTGAATATTTGTGTTGTATGCTTGT
CCAACACCGCTTGTGTGAGCATTTTTGTGGCTGTACAGAAAGTACACTTTTAAATTGT
CTCTGTCATCACTAAAATTTTTTAAATGAGCATAACAACGAAAGGCATCCAGCTGACT
TTTTGATTCCAAGATTATTGATTGGATTGACTTTTTTGCATTAAATTTTTCCAGCAAAA
TAAATCATATGGCGAGTCAGGGAATAAAAAAGTCAAAAAGGAAACAAATAGAAGCTTTTT
TTTTTAAAAA

Sequence 1616

GGNCGAGCGCGCCTTGCGGGGGCGGTATCCCGGCGCCCTAAGACCCACGACCNCNNGCA
CCGGCCGNTGCTGCNAGACCCCGGCCGNGTCCGTCCGATGTCGCCCCCGGNCCCGGCG
GAAACGCCTCCCTNCTGGCCAGGCTGTTNAGCACCCGCTT

Sequence 1617

TCGCCACGCGTCCGTTNAGATGCAGAAATGAAAAAAAACACCTTTGTTTTATAAATATC
AAAGTACATGCTTAAAGCCAAGTTTTATCTAGTTTATTCTAGTACTTAGCTTGCCTGGA
ATAGCTAATAAATTATTCATGTATGTGCTTTTGAAGTCCAGAGCCCTATTTTTACACAC
TTGTGTGAAGTTGGCAAACATTTTGAAGTGGAAAAAGTTTCTAATAATTGGGAACAA
TTACATTAATTAATATTTTGTAAAATATTGAAGCTTTTAGCCCTATGTCAATTTGTAGAT
TAAAATAAATTAATTATAGGAAAGGAAGATAACAGTGAGAAACCAACATTAC

Sequence 1618

CACGCGTCCGCCACGCGTCCGCGCGCGGGAGCGGGCGGNGCGAGCGGGAGGCGGCGG
CTCACAAGTGAAGCGCTGNGGCATGGNGCGCGCTGCCTCCAGGCCGANNNGTACCTNAT
GTTGCGCTTCAACCTGCTNTTCTGGCTGGGAGGNGTGTGNGGGCTGGNTGTCTGGCNTC
CTGGCTTGGGC

Sequence 1619

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TCGCCACGCGTCCGGACCTGGATGTGAGGGTGAANGGGCTGTGCTGCTGGGAGCCACATT
CCTCATTGACTACATGTTCTTTGAGAAGCGAGGAGGCAGCTGGGCCCTCTGCCATCACCA
GTTAGAGGCCACCATGGTGTGAGGAGACCATCACCTCGACCAGAACTCCAGATGGTCACC
TGCCCTGGCCCCCTCCTCTGGGCAGCCCCCTTCTCCATGTACACTGCAGGGGACAGAAGG
GGGGCCCCATCCCTACCCTACTCCCTGGCCGCCCTGCCCTGTGGTTCCCAAGGAAGGGGG
TATTGTATTGAGAGCCGCTCTCCTGCTACCTCCCACCACTGTCCAACAGTCCCTCGGCAC
ACAGGCATATTAAGCTTTACACTTTTCCCATGCACTTTTTTCCACCCC

Sequence 1620

GGAGTCGACCNCGCGTCCGGGGGCTTGCTGGGATCATGGCGGAGAATCACTGCGAGCTCC
TGTCGCCGGCCCGGGGCGGCATCGGGGCGGGGCTGGGGGGCGGCCTGTCCGCCGCTGCA
GCGCTGGGCTCGGCGCCCTGGCCCAGCGCCCTGGCAGCGTGTCCAAGTGGGTCCGACTCA
ACGTCGGCGGCACCTACTTCTCACCCTCGGCAGACCCTGTGCCGGGACCCGAAATCCT
TCCTGTACCGCTTATGCCAGGCCGATCCCGACCTGGACTCAGACAAGGATGAAACAGGCG
CCTATTTAATCGACAGAGACCCACCTACTTTGGGCCTGTGCTGAACTACCTGAGACACG
GCAAGCTGGTGATTAACAAAGACCTCNCGGAGGAAGGG

Sequence 1621

GTCCGCCCGCGTCCGGGGCCCGGGGCCCTCGCCTCCGCCCTCCGCCACCTCGAGCTGCGG
TAGCAGCGACTCATGAGAGCGCGGCCGGAGGACAGATTTGATAATGGGCTGCATTAAG
TAAAGAAAACAAAAGTCCAGCCATTAAATACAGACCTGAAAATACTCCAGAGCCTGTCAG
TACAAAGTGTGAGCCATTATGGAGCAGAACCCACTACAGTGTCAACCATGTCCGTCACTTC
AGCAAAGGGAACAGCAGTTAATTTAGCAGTCTTTCCATGACACCATTGGAGGATCCTC
AGGGGTAACGCCCTTTTGGGAGGTGCATCTTCTCATTTTCAGTGGTGCCAAGTTCATATC
CTGCTGGTTTAAACAGGGNGGNGGTACTATATTTGNGGCCTTATATGATTATGAAGCTAG
AACTCCAGAAAGACCTTTCATTTAAGAAGGGTGAAAGATTTCAAATAATTAACAATACNG
AAGGAGATTGGTGG

Sequence 1622

TTCGGGAGTCGCCCCGCGTCCGCTTTTAGAAAAGGCCAATATACCTATCACACTTTGGAA
GTAAAAATACACACTTTCGTGTGTACCTAAAAAAAATCGTTGAAAATCAAGGCCAAAG
GTAGTGCAATTTTTTCATTAAGATTTAAAAAAAAGGGAATGATAGTCTTTGAAAGAAAAC
AGTAGGCATCCAGCACTGGACAAAACATGGGTATCAAAGATGAATAATCTTTGGAGATTC
TGGCAGTGTTTTCCAGAACAAAGTCAAGTGGAAGTGGAGAAATTATCTGTATAATTTTG
GACACATACAATGGCAGTTTATCAAAGGGTTTTGTTCTGTGGCCTGAATTTACTGGGGTC
CTACCTACACATTGAACATGTTTTGGCTGGCTTTTTTTTTTTTTTCAACTTGCCAGTTT
CACTTTACATGGTTAGTAATAAATGGTTTCCACGGGGTGAGTTGGGATAAAATTNTTAA
AACATNTTAAATTCCA

Sequence 1623

GGAGTCGACCNCGCGTCCGAGCCGGGCGGGGCGATGTGGAGCGCGGGCCGCGGCGGGGC
TGCCTGGCCGGTGTGCTGTTGGGGCTGCTGCTGGCGCTGTTAGTGCCGGGCGGTGGTGCCG
CAAGACCGGTGCGGAGCTCGTGACCTGCGGGTCCGGTGTGAAGCTGCTCAATACGCACCA
CCGCGTGCGGCTGCACTCGCACGACATCAAATACGGATCCGGCAGCGGCCAGCAATCGGT
GACCGGCGTAGAGGCCGTCCGACGACGCCAATAGCTACTGGCGGATCCGCGGCGGCTCGG
AGGGCCGGGTGCCCGCGCGGGTCC

Sequence 1624

CGCGTCCGGGCGAGCCGCGCCCCGCGGAGTTTTCCGCCCGGCGCTGACGGCTGCTGCGCCC
CGGGCTCCCCAGTGCCCCGAGTGCCCCGCGGGCCCCGCGAGCGGGAGTGGGACCCAGCCC
CTAGGCAGAACCCAGGCGCGCGCCCCGGACGCCCGCGGAGAGAGCCACTCCCGCCCACG
TCCCATTTCGCCCCCTCGCGTCCGGAGTCCCCGTGGCCAGATCTAACCATGAGCTACCCTG
GCTATCCCCCGCCCCCAGGTGGCTACCCACCAGCTGCACCAGGTGGGTGGTCCCTGGGGG
AGGTGCTGCCTACCCTCCTCCGCCAGCATGCCCCCCATCGGGCTGGATTAACGTGGCCA
CCTATGCGGGGGCAAGTTCAACCAGGGACTATCTTCTCGGGAATGGCGGCCAACATTGTC
TGGGGACATTTGGAGGGAGCCAACATGCCCAAACCTGGACCCTGGGGCCCCCTGGGGGCTG

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Sequence 1625

CACGCGTCCGGCGCCGCTCCCGCATCTGCACCCGCAGCCCGGCGGCCTCCCGGCGGGAGC
GAGCAGATCCAGTCCGGCCCGCAGCGCAACTCGGTCCAGTCGGGGCGGCGGCTGCGGGCG
CAGAGCGGAGATGCAGCGGCTTGGGGCCACCCTGCTGTGCCTGCTGCTGGCGGCGGCGGT
CCCCACGGCCCCCGCGCCCGCTCCGACGGCGACCTCGGCTCCAGTCAAGCCCCGGCCCGGC
TCTCAGCTACCCGCAGGAGGAGGCCACCCTCAATGAAGATGTTCCGCGAGGTTGAGGAAC
TGATGGAGGACACGCAGCACAAATTGCGCGCGCGGTGGAAGAGATGGAGGCAGAAGAAGC
TGCTGCTAAAGCATCATCAAGAAGTGGAACCTGGCAAACCTTAC

Sequence 1626

CCACGCGTCCGGCGGGGGGTGCCCCCGGGACGTAGCGCCGCGGAGAGGAAGCGGCAAG
GGGACCATGCGGCGCCTGACTCGTCCGCTGGTCTGCCAGTCTTCGGGGTGCTCTGGATC
ACGGTGCTGCTGTTCTTCTGGGTAACCAAGAGGAAGTTGGAGGTGCCCGACGGGACCTGA
AGTGCAGACCCCTAAGCCTTCGGACGCTGACTGGGACGACCTGTGGGACCAAGTTTGATGA
GCGGCGGTATCTGAATGCCAAAAAGTGGCGCGTTGGTGACGACCCCTATAAAGCTGTATG
CTTTCAACCAGCGGGAGAGTGAGGCGGGATCTCCAGCAATCGGGCCATCCCGGACACTCG
CCATCTGGAGATGCACATGGCTTGGTGTATTGGACGGGACCTTCCACCCACTT

Sequence 1627

GCCACGCGTCCGCGCCCGCTTGCCCGTCCGGTCGCTAGCTCGCTCGGTGCGCGTCGTCCC
GCTCCATGGCGCTCTTCGTGCGGCTGCTGGCTCTCGCCCTGGCTCTGGCCCTGGGCCCCG
CCGCGACCCCTGGCGGGTCCCGCCAAGTCGCCCTACCAGCTGGTGCTGCAGCACAAAGCAGG
CTCCGGGGCCCGCCAGCACGGCCCCAACGTGTGTGCTGTGCAGAAGGTTATTGGCACTAAT
AGGAAGTACTTCACCAACTGCAAGCAAGTGGTACCAAAGGAAAATCTGTGGCAAATCAAC
AGTCATCAGCTACGAGTGCTGTCTTGATATGAAAAGGTCCCTGGGAAGGANGGGGGCTT
GTCCAAGCAAGCCCTACCACTCTCAAACCTTTACGAGACCCCTGGGNAGTCGNTTGGATCC
ACCACCACTCAAGCTGTACACCGACCGCACGGAGAAGCTGAGGCTGAATGGGGAGGGGCC

Sequence 1628

CCTAAGGGCAACAAGGGCGGTCTTGCCAGCCGGGCTTTGAGGGAGAGCAGGGGACCAGA
GGTGACAGGGCCAGCTGGTCTGCTGGTCTCCAGGGCTGATAGGAGAACAAGGCATT
TCTGGACCTCGGGGAAGCGGAGGTGCCGCTGGTGCTCCTGGAGAACGAGGCAGAACCCGG
TCCACTGGGAAGAAAGGGTGAGCCCGGAGAGCCAGGACCAAAGGAGGAATCGGCAACCG
GGGCCCTCGTGGGGAGACGGGAGATGACGGGAGAGACCGGAGTTGGCAGTGAAGGACGCA
GAGGCAAAAAAGGAGAAAGAGGATTCCCTGGATACCCAGGACCAAAGGGTAACCCAGGTN
AACCTGGGCTAAATGGAACAACAGGGACCCAAAGGCATTNAGAGGCCCGAAGGGGA

Sequence 1629

AGTCGCCCCGCGTCCGCTGTGCCTGAAGGAGACTGGTTTTGTCCAGAATGTCGACCAAAG
CAACGTTCTAGAAGACTCTCCTCTAGACAGAGACCATCCTTGAAAAGTGATGAAGATGTG
GAAGACAGTATGGGAGGTGAGGATGATGAAGTTGATGGCGATGAAGAAGAAGGTCAAAGT
GAGGAGGAAGAGTATGAGGTAGAACAAGATGAAGATGACTCTCAAGAAGAGGAAGAAGTC
AGCCTACCCAAACGAGGAAGACCACAAGTTAGATTGCCAGTTAAAACAAGAGGGGAACTT
AGCTCTTCTTTCTCAAGTCGTGGCCAACAACAAGGAACCTGGAAGATACCTTCAAGGAG
TCAGCAGAGCACACCCAAAACAACCTGTTTTCTTAAAACCTGGGTAGAAGCCTAAGAAAG
ATAAACTCTGCTCCTCCTACAGAAACAAAATCTT

Sequence 1630

TNCGGGCCTGGTGAGCACCGCCGAGGCGCGGGCCAGCTCTTCGAGGTTGTGCGCGGGAGT
GGCAGCGCGGGCCGGGCGGAGCGAGGGGCTAACTTCAGCGGTGGCACCGGGATCGGTTGC
CTTGAGCCTGAAATCATGACCACCCAGGAAAAGAGAACTTTCGCTGAAAAGTTACAAG
AACAAATCTCTGAATCCCGATGAGATGCGCAGGAGGAGGAGGAAGAAGGACTGCAGTTA
CGAAAGCAGAAAAGAGAAGAGCAGTTATTCAAGCGGAGAAATGTTGCTACAGCAGAAGAA
GAAACAGAAGAAGAAGTTATGTCAGATGGAGGCTTTCATGAGGCTCAAGATTAATAACAT
GGGAGATGGCCAGGGTGGGTGTCATCACTTCTGACATGATTGAAATGATATTTCCAA

TABLE 1

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AGCCCAGAGCAACAAGCTTTCAGCAACACAAGAAATTCAGGAAGCTGCTTTCAAAAAGAA
CCTAA

Sequence 1631

CGGAGTCACCACGCGTCCGGGGCTGCCAAGGGAGGAGGAAGATGGCGGCGGGGGCGAGGT
GAGGTGTTGGCAGTGGAAGGGGTTCCGGGCTCGGGGGGCGGGGGGACGCGGAGCGATGGC
CCGCGCCGGCCGAGGGGCGGATAAAAAGCCGTCGCGCTGCGGGAGTGGGCGGGAGGGAG
AGGGGGTGTCCGAGGGCCACAAGAGTATGACGGGGCTGTACGAGCTGGTGTGGCGGGTGC
TGCACGCGCTGCTCTGTCTGCACCGCACGCTCACCTCCTGGCTCCGCGTTCGGTTCGGCA
CCTGGAAGTGGGATCTGGCGGGCGCTGCTGCCGCGCCGCTCTGCGCGGTCTAGCGCCGC
TCGGCTTCACGCTCCGCAAGCCCCCGCAGTCGGCAGGAACCGCCGTCAACACCGGCACC
CGCGCGGGGGGGTCTGCTGCCTGG

Sequence 1632

CGTCCGTTTGTTAATATTTTTTCTCTCTTGAACAAAAGTCTGAGATAATTTAGAAAACA
GGTGCTTAATTGCAATAAAATTACTATGAAGTATATTAATAATCACGACATTGTAAATC
TCACTTTAGATCATCAAGAAAACCATTTGTTACTATCTCCTTTGAGCTTAGGAAAATGTA
CAAGAGAACAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT
TGAACCACTGATTTTAATTTGCCTAATTATCTTATGACAAGTATCAAATTAAGATGACAC
TTAAAGGATCCTTAGCATTTAATTAATGATGGAGAAAGAGTGCTCAATAGGACAGTTCC
CCAGTTAAGGGGTAATGGAGATGCCATTTTCAGGAGGACCATTCTAAGAAGATATTTTT
GGATTCAATTAATAACATTTAATAAAAAGCCCTTCTTCAAGATTGGGAAC

Sequence 1633

CGCGTCCGCCGGCCTGGTGCACGCGGCGCACCGAGGCCTCCCGCAACGCCGCCGACAAGG
AGCGGGCGGCGGGCGGCGGCGCGCCGGCAGCAGCGAGGACGACGCGCAGAGCCGCCGCGACG
AGCAGGACGACGACGACAAGGGCGACTCCAAGGAAACGCGGCTGACCCTGATGGAGGAAG
TGCTCCTGCTGGGCTCAAGGACCGCGAGGGTTACACATCATTTTGGAAATGACTGTATAT
CATCTGGATTACGTGGCTGTATGTTAATTGAATTAGCATTGAGAGGAAGGTTACAACCTAG
AGGCTTGTGGAATGAGACGTAAAAGTCTATTAACAAG

Sequence 1634

CCCCGCGTCCCGGTTGGCCGGGCGGAGGTCTTCGCTGAGGCCCGGGGCGGGGTGGCGCCA
CCCCTGATTGCGGTGCCACGGAAGTCTCCTGCTGGGCGGAGAGGACAGATTTTGCAAAGC
GGAGGCTTGCGACGGGTCTGCAGGGGGACAGTGAGGAAAGGGCCCGCCTCGTNTCCGCT
CCTGGGGGACCCGAGAAATAAGAATCAAACCTCCACAATGACAACCTATTTGGAATTCAT
TCAACAAAATGAAGAACGAGAATGGGAGTCCCGATTAGT

Sequence 1635

CCACGCGTCCGGGCGGGGCCATCCAAGCAACGCTGAAGGCCTTTTCCAGCAGCTGGGAGC
TCCCGGATTGCGTGGCACAGCTGAGGGGCTCTGTGATGGCTGAGCTCTCTTATGTCCTA
TACTCACATCAGACATGTGATCATAGTCCCAGAGACAGAGTTGAGGTCTCGAAGAAAAGA
TCCATGATCGGCTTTCTCCTGGGGCCCCTCCAATTGTTTACTGTTAGAAAGTGGGAATGG
GGTCCCTAGCAGACTTGCTGGAAGGAGCCTATTATAGAGGGGTTGGTTTATGTTGGGGA
GAATTGGGCTGAATTTCTCCACAGAAATAAGTTGCCATCCTCAGGTTGGCCCTTTCCCA
AGCACTGTAAGTGAGTGGGGTCAGGCAAAGCCCCAAATGAGGGGTTGGTTTAGATTCTGA
CAGTTTGCCAGCCAGGCCCCACCTCAGCGTCTGTCGAACAAACAAAGNTNGGGNGGGTTT
N

Sequence 1636

CCNCGCGTCCGCGGACGCGTGGGCGGACGCGTGGGCTTCTGCAGCAAGCTCAGGAGAGCT
GCTGTCTTCCCTCCCGCCCACCAGCAACGCACCCTCTGACCCTGCCACAACCTACTGCAAA
GGCAGACGCTGCCTCCTCACTCACTGTGGATGTGACGCCCCCACTGCCAAGGCCCCAC
CACCGTTGAGGACAGAGTCGGCGACTCCACCCAGTCAGCGAGAAGCCTGTTTCTGCGGC
TGTGGATGCCAATGCTTCTGAGTCACCTTAACCTTTGAACCATTCCTTGAATTGGCGTGG
TATATTTAACCACGGGAGGCGTGTCTGGAAACGCAAACCTATCATTATTTCACTAGGT
TTGTACCGTATCTGTAGGCATTCTGTAAATAATTCCAAGGGGGAAAACCTAAACNNGGGAC

TABLE 1

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GTGGGGTTGTATCCTGCCAGGTTTGAGTGGGGGCTCACACCTAGGGTGAGAAAGTCAGAAA
GCGCTTGATTTTAAACAACCAAAAAGAATTGAAAGGGTG

Sequence 1637

CGTCCNATAGGCTTGACACATTTTCTAACTACATGTTTAAGTGGCAGAGTCCAGGCTGTC
GAGTCACGGTTGGGTTTGAATCTGACTCCACCAGTAACTTTGGTTGGAAAAATCACTTA
TCCTCTTTAAGCTTGATTTTATTTATTTTATTTATGTAAGAGTGAGACAGTAGTAGCTT
AATAGGGTTGCTTTTAAATTAGAGTGAACATGAGGCATTTATTTCGGTGCCAGACAGATAA
CTGCCTATAACAGGATGTGATCAGCACAAAGTAACAGAAAATTAGCCTGGACGGTGGCTTA
AGCAATGGGGAATGTTTATCTCACATAGCAAAAAGGTCTGTAAATAGGATGGTTTTAGAG
TTGGGGTGGGGAAGCCAAAATGTCATCAGGATTTCTTGGAACCCGT

Sequence 1638

CGCGTCCGGATTAATACAACCTCTTAAAAATATAGTCAATAGGTTACTAAGATATTGCTT
AGCGTTAAGTTTTTAACCGTAATTTAATAGCTTAAGATTTTAAGAGAAAATATGAAGAC
TTAGAAGAGTAGCATGAGGAAGGGGAAGAAAAGAAGGGGAAGAAGATCAAAGAAGGAAAG
AAGAAGGGGAAGAAAAGAAGGGGAAGAAGATCAAACCCACCATGCCCCAGGCTCAGCAG
GGAGCTGCTGGATGAGAAAGGGCCTGAAGTCTTGCAAGGACTCACTGGATAGAAGTTATTC
AACTCCTTCAGGTTGTCTTGAAGTGAAGTGAAGTCAAGTCCAGCCCTACAGAAGTGCCTTTTA
CGTATTGGAGCAACAGCCGTGTTGGCTTGGCTGTTGACATGGATGAAATTG

Sequence 1639

CGCGTCCGGCTCCCCGCACCCCTCGCACTCNCTCTGGCCGGNCCAGGGCGGCCTTCAGC
CCAACCTTGCCCAGCCCCACGGGCGCCACGGAACCCGCTNGATCTCGCCGCCAACTGGTA
GACA

Sequence 1640

GTCGCCACGCGTCCGGCGGGCCGGGGCAGCCGGGAAGCGGGTGGGGTGGTGTGTTA
CCCAGTAGCTNCTGGGACATCGNTCGGGTACGCTCCACGCCGTNCAGCCACTGCTGTGG
TCGCCGGTC

Sequence 1641

CGTCCGCTCCTCCCGCCTGAGGCGAGTCTGGGCTCAGCCTAGAGCTCTCCGGCGGGCGGC
CAGCTTCAGGGCAGCGCGGGCTGCAGCGGCGGCGGGTAGGGCTGTGTAGGGCGAGGC
CTCCCCCTTCTCCTCGCCATCCTACTCCTCCCTCCTCGTCATCCTCCCCCTTCGTCTC
CTCGCCTTCTCCTCCTCGTCAGGCTCGACCCAGCTGTGAGCGGCAAAGATGGGCGGCGC
CCAGGCCGCGCCTGCCAGGCTGTCGGGGCGTCATGGTGCCGGCGCCCATCCAAGACCTG
GAGGCCCTGCGCGCGCTCACGGCGCTCTTCAAAGGAGCAGCGGAACCGAGAAACAGCACC
CAGGACTATCTTCAAAGGAGTTCTGGATATCCTAAAGAAATCTTTCTATGCTGTTGAGC
TTGCCTGCANGAGATCCATCCCAAGTGGAACCT

Sequence 1642

ACATTTATCATGGATGCTGACCGGGAGAAAGAAAGAAAGAAACGGGAGGAGCGGGAGCGT
AAGCGGCGGAAGGAGGAGGAGGTGCAACAGCCAAAGTTGGCAGAGGAGAGACGGCGGCAG
AATTTACAGGAGGAAAAGGAAAGGAAGTTGGAATGCCTGCCCCCTGAACCTTCCCCTGAT
GACCTCGAAAGTGTCAAGATCATCTTCAAATTACCTAATGATTCTCGAGTAGAGAGACGA
TTCCACTTTTACAGTCTCTAACAGTAATCCACGACTTCTTATTCTCCTTGAAGGAAAGC
CCAGAAAAGTTTCAAGATTGAAGCCAATTTTCCAGGCGAGTGCTGCCCTGCATCCCTTC
AGAGGAGTGGCCCAATCCCCCTACGCTACAGGAGGCGGACTTAGCCACCAGAAGNTCTT
TTTGTTACAGGACCTAACTGACGAATGACATTTTTTTCTTTCTGTCCCCTCCTACCCAGT
CCCTAAAAGAAATGGGGNAAAAAGGAAACAACAGCAGTCNTAAAAA

Sequence 1643

CGCGTCCGGAGGGGCTAAGAAGGTTGTCCTTGCCCTAATGCTCTGATCTGTAAGTGAATAG
GGCAGAACAGTTCAGCCTTGAGGTTAGAATTTAGCAGGAGCTATCCTGACTTAATATCCA
GTTGTGGGGTTTGCAAAACAAAACAGCTGTATGTAATCATTGCCACTAGTTCATCTAGA
ACTCCTTTCTAGTTTGTTATTTTAAAATGTTTATACATAAAACCACCAAAATACATAGC
TTCGACAAGATGGAAGTTTATTTCTCTCTCCATAACAGTGCAGTGATAGTCAGCTGGTC

TABLE 1
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CAGGCCAGGCAAGGGGCTGGTCCATGATGTCATCAGGCACCCAGGTTCTACTGGCTTTG
CATGTGGCCACAGTTAGCAACAAANGGAGGCTGTAAATTT

Sequence 1644

CGCCACGCGTCCGGTGATGCGGACCCCGGGCGGGCGCAGGGCGCGGGGCTCCGGCGCCGCC
GCTGCGTCCTCCCCGGCCGCGGGCGAGCCGCTGCAGAGGGAGCGTCGCGCCGGGGCGGAG
TGCGGGCTTGCGCGGCAAGTGCGCGCCGAGGTCACGAAATGGATTGGAGTGAACCGGAGA
CCCCGAAAACGGAAGCGCAGGGAGAAGGAAGAGGTGTTTGAAAAGCTTCTTCCAGACCAG
CTGGTCTTGCTTCTGGAGCATCTCTTGGAGCAGAAGACTCTGAGCCCCCGAACTCTGCAA
AGCCTCCAGAGGACATACCACCTCCAGGATCAGGATGCAAGAGGTTCCGCATCGGTGGTG
TGAACCTATTGTTAAGCACAAGTTCACGAAAGCCTACAAAAGTGTGGAGAGGTTCTTCA
GGGAGGATCAGGCCATGGGGTGTGTACCTCTACGGGGAGCTGATGGTTGAGTGAGGACCC
CAGAC

Sequence 1645

TCGCCACGCGTCCGGGACATCGAGTNCGGGCTGGCTACGAACTCCTCGGGGGCGAAGGTG
GCGGAGAGGGATGGGTTCCAGGACGTCCTGGCGCCCGGGGAAGGCTCGGCGGGACGGATT
TGCGGTGCGCAGCCAGTGCCGTTCTGTCCTCAGGTGCTTGGCGTGATGATCGGGGCCGGA
GTGGCGGTGGTGGTCACGGCCGTGCTCATCTCTGGTGGTGCGGAGGCTGCGAGTGCCA
AAAACCCAGCCCCGGATGGCCCCCGGTATCGGTTCCGGAAGAGGGACAAAGTGCTCTTC
TATGGCCGGAAGATTATGCGGAAGGTGTCACAAATCCACCTCCTCCCTCGTGGATACCTCT
GTCTCCGCCACCTCCCGGCCACGCATGAGGAAGAACTGAAGATGCTCAACATTGCCAAG
AAGATCCTGCGCATCCAGAAAGAGACGCCACGCTGCAGCGGAAGGAGCCCCCGCCCGCA
GTGCTAGGAAGCTGAC

Sequence 1646

TCCGCCAAGTCCTGCGATGATGGACTCAACACCTTCCGCGACGAGGGGCCGGGTTCTGCG
GCGCCTGCCAAACCGCATACCCAGCCTGCGGATGCTCCGGAGCTTCTTACCCAGCGGGTC
CTGGATAGCTGGGGCACCTCTGAAGATGCTGACGCTCCTTCTAAGCGACACTCAACCTC
TGACCTCTCAGATGCGACCTTCAGCGATATCAGGAGAGAAGGCTGGTTGTATTATAAGCA
GATTCTCACCAAGAAGGGGAAGGCTGAGGACCGGGATGACATGCTGGGCTGGATCAGAGC
GATCCGGGAGAACAGCAGGGCCGAGGGCGAGGACCCCGGCTGTGCCAACCAAGCTCTGAT
CAGCAAGAAGCTTAATGATTATCGCAAAGTGAGCCATAGCTCTGGGCCCAAAGCTGATTC
CTCCCCCAAAGGCTCTCGCGGCCTGGGGGGCCTCAAGTCTGAGTTCCTCAAGCAGAGTGC
GGCCACGTGGCCTCANGACTCAAGACCTGCCCGCAGGGAGCAAGGATGACAGTGCTGCAG
CCCCCAAACCCC

Sequence 1647

GGTGTGCCCCCGCGTCCGGTTTCTTCTAATTTATATTTCCGATACATANGTGTAGAACA
GGAATTTGCAGAAGCCATTTAAGTTATCTTTTGAGGTAANGCTCTGATTTAGCATTTATT
CTGATAAAATCTAATACATCATGGGATATATATAAAGCAACTTAATTCTTGTGGTGTAGT
CTTAATAGTTTTGAATGTTGACTGAATGTCTATAAAATTGTGAGTTTGTCTTTGTTACAT
TCCAGTGTTTCTGCCTCTTGGCATGCTTAAAGCACGGCTTACTTCATCTGCTCCTTACAC
ACTAAAATGCTGTAGTGTGCTCAACTACAGAAATAGCCGCTGCTAAGTTGATGTAGATT
TTCTACTTGAATATTTTATGGTTGTAGGAACCTCAGGAGGGTCAGTGTTTACTGGTTTA
TATATGCCTTCTTTTCTGTTTGAGCTTCTCTTTGAAGGGATTCTAACAGAACAAA
GCTGCTGATCACCTAAGTTGGAAACAGNAAAGNGTAATTAATACTTAATGC

Sequence 1648

TCACCACGCGTCCGAAAGTCCGTGACATGGTTCCTCCGTTGGTGGCCCGTGGCAGCCCGTGG
CATGGCGTGGCTCAGCTGTCTGTTGAAGTTGTTGCAAGGAAAAGAGGAAACATCTCGGGC
CTAGTTCAAACCTTTGCCTCAAAGCCATCCCCACCAGACTGCTTAGCGTCTGAGATCCG
CGTGAAAAGTCTCTGCCACGAGAGCAGGGAGTTGGGGCCACGCAGAAATGGCCTCAAG
GGGACTCTGCTCCACGTGGGGCCAGGCGTGTGACTGACGCTGTCCGACGAAGCGGCCAC
GGACGGACGCCAGCACACCGAAGTCACGTGCCAAGTGCCCTTGATTCTGTTCTTTCT
AAAGACGACAGTCTTTGTTGTAGCACTGAATTTATTGAAAATGTCAACCAGATTCTAGAA

TABLE 1

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ACTGCGGTATTCCAGTTCTTCTGACACCGGATGGGTGCTTGGAACCGTTTGAGCCTTAT
AGATCATTTACATTCAATTT

Sequence 1649

CNCCACGCGTCCGGGGATCCCTGGGGAGAGTAACAGTGGCCCCACATCCCTCCTCCTGGG
AGACGCTGGTGCAGGGCCTCAGTGGCTTGACTCTCAGCCTAGGCACCAACCAGCCCCGGG
CTCTGCCTGAAGCGGCACTCCAGCCACAGGAGACAGAGGAGAAGCGCCAGCGAGAGAGGC
AGCAGGAGAGCAAAATAATGTTTCAGAGGCTGCTCAAGCAGTGGTTAGAGGAAAAGTGA
ACGTGCACCCCCATGGGATGGAGACCCGAAGGGACTCAGACGGAGCCGCCGTGTTGGCAG
CGCCTGGGTGTGGGCCCATTTTGGGGACCAACAGCAAGCTGTGGTCGGATGAGTGCCAG
GACCTGTGTACCGGGACACGTGGGGAGTCCTCCAGCATGATGCTTGACTGACCCGAGGA
AGGTCTCATGTTTCGTGCCTGTCATTCTCGGATGGCTGTGAGGCATTCTTGGAAGGG
ATGCTTGCGTACCAAGCGGTCTACCGCATCTACATGGCTTCTGTGATGCATGTTGTCG
TTTCCACCCNGGAT

Sequence 1650

CGCGTCCGAGCTTTCAGGGAAGAACAGAGTATGGGTCTCAGCCCCCTCATGCCTCGG
AAGGCTACTACGCCTCATGATGAGCCTGCTGAAGGACGATGTGTACTGTGAGCTGGCGG
AGAGGCACATCCAACAGATTGTGCTCTTCCACCAGGCAGGTGAGGAAGGAGGCAAGGTGA
GAAGGATCACCAGCGAGGGCCAGATCCTGGAGCAGCCCCCTGGACCCTAGCCTCATCCCTA
AGCTGATGAGCTTCTGAAGCTGGAGAAGGGCAAGTTTGGCATGGTGTCTGAAGAAGA
CGCTGCAGGTGGAGGAGCGCTATCCATATCCCGTTAGGCTGGAAGCCATGTACCGAGGTC
ATNGACCAAGGCCCATCCGTAGGATCGAGAAGATCAGGCAGAAGGGCTTTGTCCAGAAA
ATGTAAGGCCTCTTGGTGTAGAGGGCCANNGTTGGTTGNCTGAGGGGGAATTGACCCGTT
GGAAGGGGGAAGCAATGAAAGGGCCAAAG

Sequence 1651

CGCGTCCGGGATGCCCTTGGGTCTGAAAGTCGATGAAGGACGCGATTACCTGCGATAAGCT
TCGTGGAGTTGAAAATAAACTATGATACGGAGATTTCGAATGGGGTAACCTAACTGAGC
AAACCTCAGTTGCATTTTGATGAATCCATAGTCAAATTAGCGAGACACGTTGCCAATTGA
AACATCTTAGTAGCAACAGGAAAAAGAAAATAAATAATGATTTGTCAGTAGTGCCGAGCG
AAAGCGAAAGAGCCCAAACCTGTAAAAAGGGTTGTAGGACATNTTACATTGAGTTACAA
AATTTTATGATAGTAGAAGAAGTTGAAAGCTTCAACATAGAAGGTGATATTCCTGTATA
CCGAAATCATAAAATCTCATAGATGTATCCTGAGTAGGGCGGG

Sequence 1652

GTCGCCNCGCGTCCGCAACATTATTGAGATTGTCGTGTATAGTCATCGAATATCAGCCAG
TTCCTGTAATTTTGTGACACGCTCTCTGCCAAGCCCACCAAGTATTCCTTTATAGCTAA
AAGTTCCATAGTACTAAGGAAATAAAGCAATAAAGACAGTCTCAGCAGCCAGGATTCTGG
CTGAAGGAAATGATCCGCCACCCTGAGGGTGGTGTATGGTAGTTTCTACCCATACCTCAGC
CTCAGGCGAGTGGCTTATAGCCTCCATTATGGTGCATTTATTTATGGTACTAAGATAA
AGACTGTCAATCCATTGATTTATCTCCTCCTGTCCCCCATCTAAATACCCATGCTGCTT
TTCTGGAGTGTTGTGGGGGGGTACCAGCTTGATCCACTGGTGCTCTTTAAGAAGGCCCA
AGAAAGGTCTTTGGGGCATTGCCAAAGAAAATCCCGGATTTATGTGGGAAAACCCCTCACT
TTTCTCTTACNGGCTGGTACCAAGA

Sequence 1653

CCGTCCGTTTTTTTTTGAACCTACCGTAAAATTTTTTTTTAAAAAGTGCTTGTAATAA
TAAAGAGGAATAAAAGGGGGGTGAACAGCCAGTACGATAGTGCATGCCTGAAATTCAGT
GCTTTGGGAGGCCGAGGCAGGAGGATCGTTTGAGGCCAGTAGTTGGAGAGCAGTGTTGGC
AACGTAGCAAGACCCCATCTCTACAAAAAATTTAAAAAGTTAGCCGGGCATGGTGATTCA
ACCTGGAGTTCCAGCTGCTGTGGAGGCTGAGGTGGGAGGATCGCTTGAGCCCAAGGAATT
GAGGCTGCAGTGAGCCATGATTGCACCACCGCACTTCAGCCTAGGTGACAGAGCAAGGGT
CTACCTCAGAAAAAAGAGGAGGAGCAAGCACGTGTTGATGGGTGGAATCCAGCC
AGAAATGCTGAGGCTGAAAAGATTGTTCCAGTTTCTGAGTGGTGGGAGGAGGAGGAA
ATT

TABLE 1
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Sequence 1654

CGCGTCCGCTGACATTTCTAGGAAGCTNGGAAAAGGAAAGTGAAGGAATGGTCTAAAGA
AATGACCATTACACTGATTTTGTCTGGACAGTCTGGCCGCAGGTTATTCATAGATTATT
CAGCCTTTGCAGGACTTGGATTCAGGGTTTTACTCAGTCCCTTACCTTAGGTGGAATCT
TCTTAAATTGAAATTTTTGGTAAGGAATTCATTTACAGGTAGTGTTCAGACTCTGAAA
GCCCTGACTTGGTTCTTGGCTTCTACTGTACTAGTTACTAGTTACTGGTACTGTTGCCAA
GCAATCTGCTTGAATTTGTGGATCCCTGCTGTTCCCTAATCCCACCCCTGCCCTGAGA
CAGTGAATGTAGTCCGTGAAGGGAGTGCCTCTCTGGGACCCCTGTGTTGTTACAGGCTG
TGCAGTGCAACAATTCAGCAAAAATACCTATCCCCGCACTTAGTCATTCTGGTAACT
AACAAATTTGAAATACTCATATAAAATGAACAGGAAAGTGGTTAGTG

Sequence 1655

GACCAACGCTCCGGACCCAGACCCGGCTGACCCACCTACCCGCGATCCTGCCCATGGCTG
ACGGGCTCTTTCGGCGCAGACCCTGGGGTCTCGAGCAGATTGCCCCGACCCGAGTCCG
AAGGCCTGTTTGACAAGCCTCCCCCGGAAGACCCTCCCGCTGCCGCGGGGCCAGGTCCG
CGTCGGCCGCGGGCAAGAAGGCTGGTCGGCGCGCGGGCGGGAGGGCGCAGGGGGGCCGCG
CCGGGCAGCCCCCGAAGGCCGCATCGCGCCCCCGCCCAAGAAGGAGGCGCCTCCACTGG
ACGAGGGCTGCTATCTCGACCATTTTCCGCACCTCTCCATCTTCATCTACGCAGCCATCG
CCTTCTCCATCACCTCCTGCATCTTACCTATATCCATTTACAGCTTGCCTGAGTGGCCA
GCGCGGGACGGGGTGGGCGCAGGACCGAGCGGGAGGGAAAGGGGAAAACGGGGGCTNGG
CATTTTGTGTTTTAG

Sequence 1656

CNCTAACCCCGAACTCTAGATCGTCTTGCTTGTTGTCTGAAGAAGGGAATGAAATAGAA
AGTGGAATAATAATTTTCAGAGCATCTTCCCTTAAGTAAGCTACAGCAAGGCATAAAA
TCTGGTACATACCTTCAAGGAACATTTAGAGCTAGCAGGGAAAATTACTTGGAAGCTACA
GTATGGATTATGGCGACAGTGAAGAAAATAAGAGATAATCTTACAGGGACTTAAACAT
TTAAACAGAGCTGTTTACGAAGATATTGTGGCTGTGGAGCTTCTCCCCAAGAGTCAGTGG
GTAGCACCATCTTCTGTGGTTTTACATGATGAAGGTCAAAATGAAGAAGATGTGGAGAAA
GAAGAAGAGACAGAACGAATGCTTAAGACTGCTGTAAGCGAGAAAATGTTGAAGCCTACA
GGTAGGAGTTGTAGGAATAATAAAAGGAATTGGA

Sequence 1657

CGTCCGCGGACGCGTGGGCGGACGCGTGGGCTGGCTGTATCTATACTTTCCTTGAGAAAA
ATCCCATAAAGTGGATGGACCTGTGAAGAAAATGTATGCTTATGGCCTAGCCTTCATGTC
TGGCTGATGTATCCTATAAGGCAGTAAGCCCCCTTTCTAGTCTCTGGTAAGATGCAAGAG
CTCATATCCCCATCACTGACATTTTAGTTTGGAAATAATATTGAGACTGTGCTATGACCA
ACCCCTGATGTTGTTTTTCTTTCAAACCTTTGCATATGAGTAGAGGAAAAGCCTAAAA
GTTAAGTATTTATGTCTGGGGGGATACCTTCAGGTGTCTTATCTGTTTTATGCAAGAATT
TATGTGTTTCATCTTTATTAGTGCAAAGATTTTTTTTTAAATTTTGTATAATTGGAGG
TAACATTAAGACAACCTTNTCCACAAGAAAACCTCTAAAATTAATATTCCTTAAGATT
TGTTTTTCCTTGCCTTATAATATTACCTTTTAATTGCATGCAAGATTGTCATACTTTTC
AAAAG

Sequence 1658

GTCCGCCCCGCGTCCGTTTGATATACCACTCTGATAACTCATATAAAAATATCATCATAAA
AAGCTTAATTTTCATCCCTTTTATGTTGGTTTTAAAAGGTAAATGCTTACCATATTTTATA
ATTGAGAACTCTTACATAGTAGAATCCATTCTATAATACATGTGTTGACAAAGCTTTAGA
GAAAGTTTCCTATTCTCTTCCATTTCCCTGCCCAAAGTGTGACATAGGCAGTGATGAA
GAATCTTTACCAAGATTTTCAGGGTGTACCTATGAAATTGCTTTAAATGCACTGCTGGTG
TAAATAATTAGCAAGCAAAAGCGTTTCTGTGACTTCAGGTACCAGCTTAAAGAGCACTAG
GGATGGGGAACGAATGCCAAATCAGACTCCACCTAGAGCACCAGGAAACAGCTTGTCCCT
GGTAGGGAAATGGTGTGCTGAAAG

Sequence 1659

CGACCNCGCGTCCGGCTGNTGACCCCATGCTGAGTGGCCNGTGGGGAGCGGCGCCCGGCA

TABLE 1
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GGCTCTTCTGGGGTCGTCTGTCCTATCCGTGGATTGTATATACTCTTCTCTGTTAAGGAG
TTTTTCCCAAGAAGAAAAGTATTTAAAAGAAATACCAGTGAGTGCCTTAAAGTTGGAGAA
GTAAGTGGCCATGCCAGAAATAGGATGCCAGTGCCAGAGCAGTGAGATTAGTCTGT
GTCCACAAGCAGAGGCCCCCTCGATGGGAGGGAGTGGCAGGCAGGAGAAGGTGGCGCTGC
CAGGTGCCCCGGGTCTATTGGAGGCGCCCCATCTCAGACTTCCTAACACAGCCTGTGTGGA
AGGCAGAACAAAGAATGCATGCCAGTCAGAAATCTGTTCTATTCTGCTCCAGGAAAATC
GGAAACCTGTGAGTCANAGTCAGAGAACTTACCCAGCCACGTATTCTGTTTCATGGGT
NCTGTAGATGTTTTGAGTCAAGGAAGGTA

Sequence 1660

TCGACCNCGCGTCCGGTGGGTCCCTGCCGGCGGGCGGGCGCAGACAGCGGCGGGCGC
AGGACGTGCAGTATGGCTCGGGGCTCGCTGCGCCGGTTGCTGCGGCTCCTCGTCTGGG
CTCTGGCTGGCGTTGCTGCGCTCCGTGGCCGGGAGCAAGCGCCAGGCACCGCCCCCTGC
TCCCGCGGCAGCTCCTGGAGCGCGGACCTGGACAAGTGCATGGACTGCGCGTCTTGAGG
GCGGACCGCACAGCGACTTCTGCCTGGGCTGAGCTGCAGCACCTCCTGCCCCCTTCCGG
CTGCTTTGGCCCATCCTTGGGGGCGCTCTGAGCCTGACCTTCGTGCTGGGGCTGCTTTCT
GGCTTTTTGGTCTGGAGACGATGCCGCAGGAGAGAAGAAGTTCACCACCCCATAGAGGA
GACCGGCGGANAGGGCTGC

Sequence 1661

GGTGTGCACCNCGCGTCCGGCGCCCCGCTCGCATTGTTGGGGCGACTCTCGGAGCGCGCA
CAGTCGGCTCGCAGCGCGGCACTACAGCGGCCCGGGCCCCGGCCCCGGCCCCGGCG
CAGGCAGTTCAGATTAAAGAAGCTAATTGATCAAGAAATCAAGTCTCAGGAGGAGAAGGA
GCAAGAAAAGGAGAAAAAGGGTCACCACCTGAAAGAGGAGCTGACCAAGCTGAAGTCTTT
TGCTTTGATGGTGGTGGATGAACAGCAAAGGCTGACGGCACAGCTCACCTTCAAAGACA
GAAATCCAAGAGCTGACCACAAATGCAAAGGAAACACATACCAAAGTAGCCCTTGCTGA
AGCCAGAGTTCAGGAGGAAGAGCAGAAGGCAACCAGACTAGAGAAGGAACTGNNAAACGCA
GACCACAAAAGTTTCACCAAGACCAAGACACAATTATGGCGAA

Sequence 1662

GACCACGCGTCCGGAAGGAAGGGACGGGCTGAGTTCCCCGACGAGAGACACACCCAGATT
TTCTGACGCTTGGGGAGAGGTCTCCAGGAGCCTTGGTCCCTCCTGGCCTGCCGGAGT
CCTTAGCCAGGATGGAGGCTGTTGTGAAGTGTACCAAGAGGTGATGAAGCACGCAGATC
CCCGGATCCAGGGCTACCTCTGATGGGGTCCCCCTTGCTAATGACCTCCATTCTNCTGA
CCTACGTGTACTTCGTTCTCTCACTTGGGCCTCGNATCATGGCTAATCGGAAGCCCTT

Sequence 1663

GTCGACCACGCGTCCGGGCTCCATCCGGGCTATCCTGCCGCCTTAGCGGCTGCTTCTCCC
CAGGATGCGGGCAGGGGGCCTCTCTCCACTCCCCACACACCGATTTCTGAGTAGCGATA
GGGGCTGGAGGCTTATTTATGGGGTAGGGGGCCGCTGGTAGGCGAAGATTGTCCGAGGG
AGAGGGGGAGGATGAAGCCAGTGCGTGGCGGAGACTTGCCAGATGTTGATGCCTAAGAAG
AACCGGATTGCCATTTATGAAGTCTTTTAAAGGAGGGAGTCATGGTGGCCAAGAAGGAT
GTCCACATGCCTAAGCACCCGAGCTGGCAGACAAAGATGTGCCAACCTTCATGTCATG
AAGGCCATGCAGTCTCTCAAGTCCCGAGGCTACGTGAAGGAACAGTTTGCCTGGAGACAT
TTCTACTGGTACCTTACCAATGAGGGTATCCAGTATCTCCGTGATTACCTTCATCTG

Sequence 1664

CCGCGTCCGGGGTGGTACCCGAGCGCCTTCCCCTCACCTCAACCAGAGAAGAGCATCC
GGTTGCTTTTTAAAGCTTTTAGCCTGCCCTAGCAAGGACAAAGCATGTTAGATTAGAGAT
GCTTCTGTGATCGCAGGGGTTCTTATTTGAAAACATCTATGATGGGGGTGGGGTGGGAG
GAGACAGGTTGTGGTTATGCAGGAAAATCTTGTCTAAAAATATATGAGTTTGGGGGTAA
GGGGTGGGATAGCCAAGCAAAATCAGTAATTATTTTAAATGAACATATGTATTTTTATT
AACTTTTAGTTAAATACAGATTTTACAACGAGGTCAGCATAAGCCTAAATCTATATAGAG
GGCTAACTCAGGCATTGTCTTGTTTATTTGTAGACTGGATTAAAAACAACCTGTCCTGTT
TTGTNAGTTCCAGCTTCTTTCGTTTAGAATAAATTAGACCAAAAAGAA

Sequence 1665

TABLE 1

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GCGTNCGCTTAATGTCAATGTGGCCTGGGCTGGAGGTCTGGACCCCCCATGGGGGATCC
TGAGTACCTGGCTGCTTTCAGGATAGTCGTGATGCCCATCGCCCGAGAGTTCTCTCCAGA
CCTAGTCCTGGTGTCTGCTGGATTTGATGCTGCTGAGGGTCACCCGGCCCCACTGGGTGG
CTACCATGTTTCTGCCAAATGTTTTGGATACATGACGCAGCAACTGATGAACCTGGCAGG
AGGCGCAGTGGTGTCTGGCCTTGGAGGGTGGCCATGACCTCACAGCCATCTGTGACGCCTC
TGAGGCCTGTGTGGCTGCTCTTCTGGGTAACAGGGTGGATCCCCTTTCAGAAGAAGGCTG
GAAACAGAAACCCAACCTCAATGCCATCCGCTCTCTGGAGGCCGTGATCCGGGTGCACAG
TAAGTGTGGAGATGGGACACTCGCTGAGCTCAGACTGAAGGATCTTGGT

Sequence 1666

CGACCNCGCGTCCGGTGTGATGATCGCTACTGCTGGAGACCGCACAGAGGAGTTCCACGG
CCACNGCAGTGAACCTCCTGGGGAACCTGCCCCCTCAAGTGTCTGGATGTTCTCCTCACCC
TGGAGCCACATGGAGACTCCACGGAGTTCATGGGAGTGAATATGGATGTGATTCTGTCGCC
TCCTCATCTTCTAGAGAAGCGTTTGCACAAGACACACAGGCTGAAGGAGAGTGTAGCTC
CCGTGCTGAGCGTGTGACTGAATGTGCCCGGATGCACCGCCCAGCCAGGAAGTTCCTGA
AGGCCCAGGTGCTGCCCCCTCTGCGGGATGTGAGGACACGGCCTGAGGTTGGGGGAGATG
CTGCGGAACAAGCTTGTCCGCCTCATGACACACCTGGACACAAGATGTGAAGAGGGTGGC
TGCCGAGTCTTGTTTG

Sequence 1667

NCGCGTCCGACACTATTTAGAGAGCTCCCTTCCCACCTCTCTGCCAGCCTTGTTACCTC
ACTTCTGCTCTGGCCATGGCTGTGAAGGGCCCAGCCAGCTCCCTGTTTTGATGTTCTGTG
CAACAGCTCCGGGGTCTTGTGACTGGAGATCCTCAACAGGCCCTGGAGCCAGGACTGGAG
TCTTGGCAGCTGATGAGCAGCACCTTGCCGGCCAGGAGGAGCTGATGCTGACGATCTCCC
CAACATCTGAAGGCTTAAAGAACATTGTCGTTCTTCAGCCCTCCTTGCTTCTCTCAATAC
AATAAGACATTGCAGAAGCAAAAGGGTGGCCTCTGCTCCAGGCAAGGCAGCTGGCTCTGT
CTGGGGGCGTGGCCTGGGGCTTGGGTGCCACGTGCTGAGATTGCATAGTCAAAACAAGC
CATTTTTGCCAACAATAGCTTGTGGCTCCACATTTTTCTACCCTTGCACTNAANGGCCA
GACCACTCTNTGATGGACCAANACCATNTTCCAAACCCATGGGGCTTTTTTTNCC

Sequence 1668

CANGAATACTGAAAAATGAAGCCTAAAATGAAGTATTCACCAACAAAATTTCCACAGCA
AAGTGGAAGAACACAGCAAGCAAAAGCCTTGTTTCAAGCTGGGAAAATCCCAACAGAAG
GCCAAAGAAGTTTGCCCCATGTACTTTATGAAGCTCCGCTCTGGCCTTATGATAAAAAAG
GAGGCCTGTTACTTTAGGAGAGAAAACCAACAAAAGGCCTTCACTGAAAACAGGTAGAAAG
CACAAAAGACATCTGGTACTCGCTGCCTGTCAACAGCAGTCTACTGTGGAGTGCTTTGCC
TTTGGTATATCAAGGGGTCCAGAAATATACTAGAGCACTTCATGATTCAAGTATCACAGG
AATTTACCTATTACAGAGTATCTTGCTTCTCTAAGCACATACAATGGATCAATCCATTA
CTTTTGCTTTGGAGGATGGAAAGTTATGAGATATATGTTGAAGACTTGAAAAAAG

Sequence 1669

GTCGACCNCGCGTCCGCCCCGCCATCACTGCTGTTCCCTCCAGGGCCAGCACTCGGGCGAG
GCAGGGGAGCTGCCTTCGGTACATAATTTGAAGGGGCACTCCCTCTTGGGCACATGCCGG
CCCTGAGTGCCCTCCCTTGCCCTCACTCTGATCCTGGCCCCATAATGTCCTCAGTGGAAGGT
GATGGGGGGCCGGTGTGTGGGGAGAGTAGAAAAGAGGGGTTGGCATGACTAAAAATACCA
TATGTGTATTAAGTATTTTGAGAATGAAATGCCAAGGAGTGCCTACTATATGCCAGCTCT
AGGAATGGAGTAGACAGTGGACACAAGAAGGACTTACGCCCTGAGCACAGGTGCCAATGG
TGACAAGACTGGCAAGACGTGAGGGCATGAATGGTTCATTACAGGCAGCTGCTGCAGATGT
GGTCACCTGGTGCCATCTGCTGCTCCCTTTTCCACTTTTCTATGTCCTCCTTCCACCCCA
A

Sequence 1670

CGACCNCGCGTCCGGTCTGAAGGGTCTGGCTGGTGAGCCAGGTTTTAAAGGCAGCCGAGG
GGACCTGGGCCCCCAGGACCACCTCCTGTATCCTGCCAGGAATGAAAGACATTAAAGG
AGAGAAAGGAGATGAAGGGCCTATGGGGCTGAAAGGATACCTGGGCGCAAAAGGTATCCA
AGGAATGCCAGGCATCCCAGGGCTGTCAGGAATCCCTGGGCTGCCTGGGAGGCCCGGCCA

TABLE 1
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CATCAAAGGAGTCAAGGGAGACATCGGAGTCCCCGGCATCCCCGTTTGCCAGGATTCCC
TGGGGTGGCTGGCCCCCCTGGAATTACGGGATTCCCAGGATTCATAGGAAGCCGGGGTGA
CAAAGGTGCCCCAGGGAGAGCAGGCCTGTATGGCGAGATTGGCNGACTGGTGATTTCGG
TGACATCGGGGACACTATAAATTTACCAGGAAGACCAGGCCTGAAGGGGGAGCGGNGCAC
CACTGGAATACCAGGTCTGAAGGGATTCTTTGGAGAGAAG

Sequence 1671

GAGTCGACCNCGCGTCCGCAACTGGTGTCCAGCTCGGTGCACTCCAAGCGCCGTTCCCGA
GCGGACCTCACGGCCGAGATGATCAGCGCCCCGCTGGGCGACTTCCGCCACACCATGCAC
GTTGGCCGGGCGGAGACGCCTTTGGGGACACCTCCTTCTCAATAGCAAGGCTGGCGAG
CCCGACGGCGAGTCTTGGACGAACAGCCCTCTTCTCATCTTCCAAACGCAGTCTCCTG
TCCAGGAAGTTCCGGGGCAGCAAGCGGTACAGTCGGTGACCAAGGGGGAGCGGGAGCAG
CGTGACATGCTGGGCTCCCTGCGGGACTCGGCCCTGTTTGTCAAGAATGCCATGTCCCTG
CCCCAGCTCAATGAGAAGGAGGCCGCGGAGAAGGGCACCAGTAAGCTGCCAAGAGCCTG
TCATCCAGCCCCGTGAAGAAGGCCAATGACGGGGGAGGGCGGCGATGAGGAGGCGGGCAC
GGAGGAAGGCAGTGCCCCGTGGAAT

Sequence 1672

CGCGTCCGCTCGCGGCNNGGCATCGNGTACATCCTCAGCAACCATGGGCTACGTGCGCCA
GCTCTCCAGGCCCTGGACACATCCAACGTGATGGTGAAGAAGCAGGTGTTTGAAGTACT
GGCTGCCCTGTGCATCTACTCTCCCGAGGGCCACGTGCTGACCCTGGACGCCCTGGACCA
CTACAAGACGGTGTGCAGCCAGCAGTACCGCTTCAGCATTGTCATGAACGAGCTCTCCGG
CAGCGACAACGTGCCCTACGTGGTCACCCTGCTTAGCGTGATCAACGCCGTGCTCTGGG
CCCCGAGGACCTGCGCGCGCGCACCCAGCTGCGGAACGAGTTTATCGGGCTGCAGCTGCT
GGACGTCTGGCTCGCCTGCGGTGAGTCCCCACTGTAGCGGTCTGCCGGNTTNNCCCTC
CTGCTCCCAAGGCCAGGCCACCTGCCCTTTGGCTCCCAGCCACCTCACCTAAGCAGCAC
CTTCCAGATGGCAGGGGAGGTGGC

Sequence 1673

GTCGACCACGCGTCCGGCCAGAGCTGAGTGGCAGCCGCTCCCTTATGCAGGACATGTGC
TCTCGGCTTACCAGGGTTCTGACCGGGTCTGCTTCTGCATTACAGCGCCTCCTGGACC
TGAAGGCATCTGAGTGTGAGACCCTGTTCTAACTCTTAGAAGTGACATTGTAAGAGGTGG
TGGGGACCAGCTAATTGGTCCAACCCAGCCTGAGTGCAACCACCTTTGAACAAATGTATC
AGTGATGAAAATTTGCCTTTGCCCCGGCTTGCTGTAATCCAGCACTTTGGGAGGCCGA
GGTGGGCGGATCACTTGAGGTGCGGAGTTGAGGACCAGCCTGGCCAGCGTGGCGAAACCC
CGTCTCTACTAAACATAAAAAAATTAGTCAGGTGTGGCGGTGCGTGCCTGTGGTCCCAGC
TATTCAGGAGGCTGAGGCACCAGAATTGCTTGA

Sequence 1674

TGACGGCGGGCCCGGCCGACGGGAGCCGGGGCGGGGCGGGCGGNCCANCGAAGGAGCGCGG
GGCGGTCTGGCCCCGCCCTCCCCGCCCGCTTCCCGGTGACCTTCAGGGGCCCGGGTG
GCGGGCGCAGGCCCTGCGGGCGCGGGCGGGATGTTCTGTCAGGAGGAGAAGATCTTCGCG
GGCAAGGTGCTGCGGCTGCACATTTGCGCGTNCGACGGCGCCTAGTGGCTGGAGGAGGCC
ACCCNGGACACCTACNGTGGANAAANCTCAAGGAGCGCTTGCTCAAAGCACTGTGCTCA
TGGGGAGCTTANAAGATCCCCAAAAGTATAACCCATCATTAAATTTAATCCCACGCTGCC
TNAANANAAGGGGTGCTTGNGTGATTGCCATGNACCATNCTTGGGAAGGAAGAAACCAT
CCCAGGACCCAAAAGATGGGCCCTATTNTTGGATTA

Sequence 1675

CACGCGTCCGGGATCCCGTACCCGGGACAGACTCGGCGCCGCTGGCTGGCCTGGCCTGGT
CGTCGGCCTGTGACCCCCCGCCCGGGGGTTGAGCGCGATCTCCTGCACCGTCGAGGGGG
CACCCGCCAGCTTTGGCAAGAGCTTCGCGCAGAAATCTGGCTACTTCTGTGCCTTAGTT
CTCTGGGCAGCCTAGAGAACCCGCGAGGAGAACGTGGTGGCCGATATCCAGATCGTGGTGG
ACAAGAGCCCCCTGCCGCTGGGCTTCTCCCCGTCTGCGACCCCATGGATTCCAAGGCCT
CTGTGTCCAAGAAGAAACGCATGTGTGTGAAGCTGTTGCCCTGGGAGCCACGGACACGG
CTGTGTTTGATGTCCGGCTGAGTGGGAAGACCAAGACAGTGCCTGGATACCTTCGAATAG

TABLE 1
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GGGACATGGGCGGCTTTGCCATTCTGGTGCAAGAAGGCCA

Sequence 1676

TCCCTCTGCTGATGATGGATGCCCTAACACCTGTGCCTAACACCCCTACTGAACCCAC
AGCTCCAGCCTTAGTTTTGGAGTCAAGTGTTAAAGGTTTCTGGCCAGAGGAATTGGGGT
CTTGCCATCCTGCAATAGCCCTTTATGGGCTCTGGGAGACAGCTTAGGGAATAAATG
GGGATTTCCCTTTTTCTACCCACTCCTTTGCTTCCTCCAAGACTTACCCAACCTCCTC
CCCCTCAGAGAACCAAATAGCCTGAGGAAGCAGGAGAGTTCTGGTTATGGCAGATTCTT
GGTGATTTGGGGCTTCAAGACAGTAGGTGAGAGATGCTGTCAGGGACGTATCTTCTTCAT
ACCAAAGTCACTGGTCCTTTCTCAGCCTCTCTCGTGCTTTTCTCCTAATGACCATATTTT
TGCCAAAATTGGGAATATGTTATCTGACAGACCAGAATATTTGAAGGTTTGGGCTG

Sequence 1677

GCGCCGCGGATATNCGGATCAACCTATGGTNTCAATATTGTNAGTTATTGAGCATAAACA
GAATTATTTCCCAANACTTGATCTGAAATATTNNTAATGGTCTNACTNGAACTTATATT
CTTNCTGGGAGNGANGTNTTATCATTTTTCCATGGAGACAGGTTCTAACTCTGTTGCC
AGGCTGCANTGCAGTGATGTGATCATAGCTCACTGCAGCCTGAACTCCTGGGTGTCAAG
TGATCTCTGGCCTCAGCCTCCCAAGTAGTTGGAACCTCAGATACGTGCCACCACAACCAG
CTAATTTATTTTTAGAGATGAGGTNTCGCTATGTNGCCAGTCTGGCCNNCTAGCCNCA
AGTGATCTGGCCATCTNAGCCTTCAGTTGGAGATGTCTGATTTATGTTAATATAAGAAAG
CTGTTGATCGTTTATCATAAANGCATT

Sequence 1678

GTCNCCNCGCTCCGCTCCTCCGCCGGCATGCAACTCGGCGCCCGCGGTCCATGGACCGG
AACCTCGGGCCGACGGACGGGAACCCGGGCCGCGATCGCCGCTCCCCGCTCAGGCTCC
TCCTCCTCGCTCTCCGCCGCTCCGCCGACTCCCGCAGGCCCTGCACCGCCGCCGCGCAG
GCTAGCGGAGCTGCCCGGGAAGCTGGGTGACGGGTTGCGGGCTGCCGCCGGAAGTGGG
CTACTCCGCCGCTCTCAGTGCTATTGTCCCTGGGCTGGCCTTGAGCGGGTCCACTGGG
GAAGGCNCGTGTGCGCCGGCTCCGCCGAAGATGCCGGACCAAGCCCTACAGCAGATGCTG
GACAAGAAGTTGCTGGGTTTGTGTTGCTACTGATGAAGATGATAGAACAGCTGAATGGGT
GAGGACCATGGCAGGTGCAGGAGGATCTACAAAATGGGTTCACCAGGGCCTGTCTACAAC
GCTGGGTGGATGAAAAGCAAAGAG

Sequence 1679

GCGTCCGGGCGCGACCGAGCGTGCGGACTGGCCTCCCAAGCGTGGGGCGACAAGCTGC
CGGAGCTGCAATGGGCCGCGGCTGGGGATTCTTGTGTTGGCCTCCTGGGCGCCGTGTGGCT
GCTCAGCTCGGGCCACGGAGAGGAGCAGCCCCGAGACAGCGGCACAGAGGTGCTTCTG
CCAGGTTAGTGGTTACTTGATGATTGTACCTGTGATGTTGAAACCATTGATAGATTTAA
TAACTACAGGCTTTCCCAAGACTACAAAACCTTCTGAAAGTGACTACTTTAGGTATTA
CAAGGTAAACCTGAAGAGGCCCGTGTCTTTCTGGAATGACATCAGCCAGTGTGGAAGAA
GGGACTGTGCTGTCAAACCATGTCAATCTGATGAAGTTCCTGATGGAATTAATCTGCG
AGCTACAAGTATTCTGAAGAAGCCAATAATCTCATTGAAGGAATGTGAACAAGCTGAACG
ACTTGAAGCAGTGGAT

Sequence 1680

GTCCGGCGTGGGGAAGGGTGGGGTGAGGGGGCGTGGCCGACAGCTAGGGCGGCGAAACTCT
CCTCCCCCTCGGCCCCACCGCGTGGGACGGCGTGAACGTGGTGTGCGAGGGATGTCAGCCT
TCTCTGAGGCGGCGCTGGAGAAGAAGCTGTGCGAGTTGAGCAACTCGCAGCAGAGCGTGC
AGACCTTGTCCCTGTGGCTCATTACCACCGTAAACACTCGCGGCCCATCGTCACCGTGT
GGGAGCGGGAGCTGCGGAAAGAGTGGAGGTGCAACAAATGAGAAATTCGAATTGGAGATT
TTGTCAAACAGGAATTTACTCCAAACCAACAGGAAGCTTACTTTTCTCTACCTAGCCAA
TGATGTCATACAGAACAGCAAGAGGAAGGGGCCAGAGTTTACAAAAGATTTTGCACCAGT
TATA

Sequence 1681

CCGGCAAAGCAGGGACTCCTGATTTATATGTCCCTCCTCCTGGCAATCCTCTCACCCAC
CTCCCCTGAGAACCTCAGTTCTTCTAAATTGCTAAAGCTGAGGGGAAAGGGATGCTTTG

TABLE 1
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CGGCAAAGGCGCTGCTGCCTCAAGCTTGCTTTACATGCCTCTCTAGTTCCTCTCGCACTA
CAGAGTGGTAGCGAACAAAAGCGTTGCCCCAGAACGACCTGAATGGAAAAATCTGCAC
ACGAATAATGGGTTTGTACGGAAAGTAGGGAACCGGGTCTGCAGCATTCCCTGGAGAC
AGACTTTCTGGTTGGTTTTCAAGGGTCCAAGGCAGCCATCAGCCCGGCTGTGCCCTCCCA
CCCTGCCTCCCAACCCAGTTGATTCTCTCTTTGTGTAAGTTTAGCCCTCTGAGGGTGGTG
GAGTGAGAGCATCCCATCAGATATATACGATTCATCAGTCGGCACTTAAAAAG

Sequence 1682

TCACCNCGCGTCCGAAAAACGCAGATGATATACCTGCAACATCNGTCATGGCTGCGCCCT
GTGCTCAGAAGCAACCCGGGTGGAATATTGCTGGTGCAACAGTGGCAGGGCACAGTGCCA
CTCAGTGCCTGTCAAAAGTTGCAGCGAGCCAAGGTGTTTCAACGGGGGCACCTGCCAGCA
GGCCCTGTACTTCTCAGATTCGTGTGCCAGTGCCCCGAAGGATTGCTGGGAAGTGCTG
TGAAATAGATACCAGGGCCACGTGCTACGAGGACCAGGGCATCAGCTACAGGGGCACGTG
GAGCACAGCGGAGAGTGGCGCNCAGTGCACCAACTGGAACAGCAGCCGCGTTGGCCAG
AAGCCCTACAGCGGGCGGAGGCCAGACGCCATCAGGCTGGGCCTGGGGAACCAACTAC
TGCAGAAACCAAGATCGAGACTCAAAGCCCTGGTGCTACGTCTTTAAGGCGGGG

Sequence 1683

CCGTCCGCTCCTTGGCAAGAACGAAAGGTGTGATGAAACCTCCCTGCTCGGAAGGGTCTC
CGTGAGAGTGTCTCATTTACATGCTGGGTTTTGCAAGCGAGGAAGCCAGGCAGTGAGG
GAACTAGAGAGAGGCAGGCGTGTGTGTGGACAAGCGCTGGAGCCGAGCCCTCAGACTGG
CACGGGAACGCCAGCGTTGGGTGTTGAGATTCCACGCGTATGTCTGGGCTCACTCACAGC
ATGGCCGAGTGTCTGCAGTGTGCTGGTCTGACCCTTCAGAGCAGCAGTGGACAGATGAGA
TAAGACTGTTTCAGAAACAAAGATGGCCACAGCCTTCCTAACAAGCAGGTCATCTGGCCA
TGTCTGTATTGTAAGTGGTAAAAGGCTTCAAGTCAGATTGATGATCAAGAAAANGTCAA
ACCCAGCCCAAGATTGGGAAAGCAGGTTNGTGGNTCCAANGCTTTTTAAAAAATTATT
TGAAGCTCTTCATTCTNTTCTGTGAGTGTGCTTTCTCTT

Sequence 1684

NCCCATACTGGGGGCCCTTCTCTGCAGGCCCATCAGGTGCAGAGCTGTGGGTCTGGTT
CCAAGACACTGTCACTGATGTGGATAAATCTTGAAGGAGCTCAGTAATGTCCTCTCAGG
GATCTTCTGCGCTCTCTCAACTTCATCGACTCCACCAACACAGTCACTCCCACTGCCTC
CTTCAAACCCCTGGGTCTGGCCAATGACACTGACCACTACTTTCTGCGCTATGCTGTGCT
GCCGCGGGAGGTGGTCTGCACCGAAAACCTCACCCCTGGAAGAAGCTCTTGCCCTGTAG
TTCCAAGGCAGGCCTCTCTGTGCTGCTGAAGGCAGATCGCTTGTTCCACACCAGCTACCA
CTCCAGGCAGTGCATATCCGCCCTGTTTGCAGAAATGCACCGCTGTACTAGCATCTCCT
GGGAGCTGAGGCAGACCTGGCAAGTTGTATTGATGCCTTCATCACGGGGCAGGGAAAGA
A

Sequence 1685

CCGCTGGTTATTACCCAGCTGGATGGTTTCCTTTTAGGCAAGAAGGAGGTCATCAGCAGG
CTCCCAACAATAATGCCGAAGTTAACAATGATGGGCAAAATGCAAACAATTGGAACCTG
AAGAAATGGAGCGTCTTATGGATGATGGGCTTGAAGATGAGAGTGGAGAAGATGGAGGTG
AAGATGCCAGTGCAATTCAAAGGCCTGGATTAATGGCTTCAGCTTGGTCTTTCATCACCA
CCTTCTTTACTTCACTAATACCAGAGGGGCCTCCCCAGGTTGCCAATTGACCTGAAAAAC
TGTGCCAGCTACAAGGAGGGTCTGACTTCAGGAAAGTGGTTTAAATAACAGTGCAATTC
AAAAAATTTATAACTTTCTTTTGATCATCATGTACAGAGGTGTTTTTTTCTTTAGGCT
TCTCATGCATATGAATATTTAAGCACGAATGGACTACTAAATATCTGAGTTTTTTTTT
TTTTTTTTTAAAGAATC

Sequence 1686

CGCGCCGTTTTGGCTGCCCTGCATAAGCTGCTACAAATAGAATAAAGAATTCATACGCC
TGTATCTATCATTTAGATGCATGGAAAAAATGGGCTTTGCACACAATGGGTTTGGAGCT
GACTGGGAACAATGGAAAAAATTACATTAGCTGTGGTTGTAAAGTTTTTTTGTTTTGGT
TTTTTTTTTTTTCTTTTTCTTTTTTTTTTTTACCATCTTGTGAAAGGTTTCTGAA
ACTCGATAATAAAAAGCGGTTGGTGTAATTATCTTTTGTGTCACATTTTAGAAGGAA

TABLE 1
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AAACATAAAAGAATGTATCCTTAGTACTGGTTCTTAAACAGCCCATAAAAAACCCATTGGC
CTGAAGCTTATATCTCAGGCCTATGCCCATCTTATAGTCTTGAAGACAAAA

Sequence 1687

CGCGTCCGTGGGTCTCGCCCTCAACCTGTGCATGTATATGTGTGTCTTTGTGTGTATG
TGTGATCTCTGCCTGCAGGACCAGCCCGGTGGCACCCTGGATCTGACCCTGATCCGTGCC
CGCCTCCAGGAGAAGTTGTACCTCCCTACAGCTCCCCACAGGAGTTTGGCCAGGATGTG
GGCCGCATGTTCAAGCAATTCAACAAGTTAACTGAGGACAAGGCAGACGTGCAGTCCATC
ATCGGCCTGCAGCGCTTCTTCGAGACGCGCATGAACGAGGCCTTCGGTGACACCAAGTTC
TCTGCTGTGCTGGTGGAGCCCCCGCGATGAAGCCTGCCTGGTGTGGCCTGAAGTTTC
CCAAGGAAGCTGTCTGGTGGGCCCCCTTGGGTGATGGGCCCTTGGAGGGCTTGAAGGCC
CCCCATGGGCCAAGCCCCAGCCCTGGGCTTCTGGTTCNTCTTGTCCCTGGTCACCCCCAT
CCCCACTCCCCCTTGGGTGGGCCTTGAACCTNCCACTTCCCTTGGGTGGGGCCC

Sequence 1688

AGGAGGNTTGAAGGAGTTGNNGGAGGAGGAGGATGGAGGCGAGGGCGAGCGAGCCCAGCG
GGGTCCNGGNCGCCCGCGGGCCAAAGTCGAGCCCTNCCGCCNNTGGGCGAGCGCGCCAG
CCGCCNTTTCANAACAGTTCGNCGCCACAAAANAAAAGAACGGGGGGGTGCCGAGGTTN
CCATTGANCTCTTAAAGTGGTGACGGTCCCTGTTGAGTGCGCTGCACCGGGCCGTGACC
CGCGCCCCTGTGCGTCCC

Sequence 1689

GGAGTCGACCACGCGTCCGCGCCGCGCCGGTGTCCGGACCGCTCGCCCCCGTTTGGAC
CCGACTTCGGTCTTCTGGGGTGTGATGCTCCTAAAGCCCGAGAGCACGTGTCCAGACC
CTAGCCTGTACGACGCTGACTCTGCCCGGTCCCAGAACCAAGCCATGCCGGGGTGTGGC
CTCTGACCCACGCGGAGGGGACCTCGCCTTGCGGGACCCACCTGGAACCCGACCTNCC
AGNCTCGCAGCCGGCCTGAGCCGCCATGCGCGGGAAGTTGCTGCCGCTGGCCGGCCTATA
CCTGGTGCAGGGCCTGCCCTACGGGCTCCAGTCCGGCCTCCTGCCAAATGCTGCTTGCCT
GCCGGCGGCCTCTCGCTGACGCGCGTGGGGCTGGCCAAGGTTCTGTACGCTNCGTGGCTT
GCTTCAAGCTGGCT

Sequence 1690

CNCCCCGCGTCCGCGGACGCGTGGGTGCTTGTGCTGAACCTGAGCTGCAAGTTGGAATT
GATATAATGAAGACTAGTTTTCCAGGTGCTGGTTCAATTCCAGAATTTTTCATATTATG
AAAAGAAAGTTTACCAACAAAGAATGGGAAACAATCAGAAGCTTTAAGGATGAGTGGACT
CAGCTGGATATGTTTTATAGGAATTGGGCACTTAAGGAAAGCTTCATAAAAGCCATTGGT
GTTGGACTAGGATTTGAATTGCAGCGGCTTGAATTTGATCTATCTCCATTAACTTGGAT
ATAGGCCAAGTTTATAAAGAAACACGTTTATTCTGGATGGAGAGGAAGAAAGAAATGG
GCATTTGAGGAAAGCAAAATAGATGAGCACCATTTTGTGTCAGTTGCTCTTAGGAAACCC
GATGGGATCTAGACATCAGGGGATGTTCCATCTCAGGATGATTCCAAACCAACCCAGAGG
GCAATTTACTATTCTCAACTTTAATGATTTAA

Sequence 1691

GACCACGCGTCCGCCCCGTCCAGGAGCCCTAGGAGTGCTACGGGGGGCCGGAGCCTTGCCC
GGGCCGCTGCCCCGTCCCTGGATTCCGGGGCTGGACGCAGCAAGCGGGGCGCTGTGTCCCC
AAGCTCCCCGTCTCGGCCAGGCGGGCACCACGGCAGGGGCTGAGCTACCCTCATGGAAG
GGAGAGGACCGTACCGGATCTACGACCCTGGGGGCAGCGTGCCCTCAGGAGAGGCATCCG
CAGCTTTTGAAGCCTAGTGAAGGAGAATTCCCGGCTGAAGGAAAAAATGCAAGGGATAA
AGATGTTAGGGGAGCTTTTGAAGAGTCCAGATGGAAGCGACCAGGCTCCGGCAGAAGG
CAGAGGAGCTAGTGAAGGACAACGAGCTGCTCCACCACTTCTCCCTCCTTGGGCTCCT
TCGACCCCCCTGGCTGAGCTCACAGGAAAGGACTCAAATGTCACAGCATCTTCCACAGCCC
C

Sequence 1692

ACAGAATTTAGGGGTGGGTGAAAGCACTTGNGCTTTAGCTNTTTCATATTAAATATATAT
CTATATTTAAACATTCATGGCATAGATGATGATTTACAGACAATTTAAAGTTCAAGTCT
GTACTGTTACAGTTTGAGAATTTGTAGTATTACATCATTACATAAGTCATTTTAGTAACA

TABLE 1
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GCCTTTGTGAAATGAACTTGTTTACTATTGGAGATAACCACACTTAATNAAGAAGAGACA
GTGAAAGTACCATCATAATTAACCTAAATTTTTTGTATAGCAGAGTTTTCTTGTTTAAA
AAAAAATAAAATCATCTNGAAAAGCATTGTTGTACAGTTAAAATGTATAATGAAGCTTTTG
CCAACCAGACTGGTGCTTAGCAACCAAATTTTTTTTTTAAATAAAGCTTTTATGGCAGGT
GGGTAAATAAGGTGGCCTTCCAAATATATTGGTGTCTTGATGGAGAGTTNTTATGTTGAA
ATGAATGTGGGTCTTTTCT

Sequence 1693

CGGTTAACATGGCCGTCACCGACAGCCTCAGCCGGGCTGCGACTGTCTTGGCAACTGTNT
TGCTCTTGTCCTTCGGCAGCGTGGCCGCTAGTCATATCGAGGATCAAGCANAACAATTCT
TTATGAAGTGGCCNATCAAACAANCTGGGCCTGTTCTTGGTGTGTACATCCCCGATTCTG
GTATTAATTATCGACATGTTGCAAATACCCTTTCTGTTTATAGAAGTGTCAAGAGGCTAG
GTATTCCTGACAGTCACATNTGCCCTAATGCTTGACAGATGATATGGCCTGTAATCCCTA
GAAATCCCAAACAGCTACAGTGTTTAGTTACAANCAATNTGGAACATAATGGTGTAT
GGGAGAATGATGTGGGAAGGTGNNATTATAGAAGTTTNTTGAAGTAAACNGGTGGGAGAA
NNNTTTTTTACCNGGGTAATTTAANCTGNGGGAGGGANTCCCCACCCTAAGTANCTTCC
TTCGGG

Sequence 1694

GTCCGCAAGATGGACGCAGCTCTCTGACCTACGACACTCTCCGGTTTGCTGAGTTTGAAG
ATTTTCCTGAGACCTCAGAGCCCGTTTGGATACTGGGTAGAAAATACAGCATTTTCACAG
AAAAGGACGAGATCTTGTCTGATGTGGCATCTANACTTTTGNTTTACATACAGGAAAAAC
TTTCCAGCCATTGGGGGGACAGGCCCCACCTCGGACACAGGCTGGGGCTGCATGCTGCGG
TGTGGACAGATGATCTTTGCCAAGCCCTGGTGTGCCGGCACCTAGGCCGAGATTGGAGG
TGGACACAAAGGAAGAGGCAGCCAGACAGCTACTTCAGCGTCCTCAACGCATTTCATCGAC
AGGAAGGACAGTTACTACTCCATTACCAGATAGCGCAAATGGGAGTTGGCGAAGGCAAG
TCCATAGGGCCAGGTGGTACGG

Sequence 1695

CCCCGCGTCCGCTCGNAGCTGTCCGCGGTCTGTTTGGCCCGAACGGCGGGGAGGCGCTG
ATCATGGCGACATTCATCTCGGTGCAGCTGAAAAAGACCTCAGAGGTGGACCTGGCCAAG
CCGCTGGTGAAGTTCATCCAGCAGACTTACCAAGCGGCGGGGGAAGAGCAGGCCAGTA
CTGCCGCGCGGGCGGAGGAGCTCAGCAAGCTGCGCCGCGCCGAGTCGGTCTCGCTGGA
CAAGCACGAGGGCGCGCTCGAGACGCTCCTGAGATATTATGATCAGATTTGTTCTATTGA
ACCCAAATTCCCATTTTCTGAAATCAGATCTGCTTGACATTTACCTGGAAGGATGCTTT
CGATAAAGGTTCACTTTTGGAGGCTCTGTAAACTGGCTCTTGCAAGCTTAGGATATGA
AAAGAGCTGTGTTGTTGTTCAATTGTGCAGCCTTAGCTAGCCAAATTGCAGCAGAACAG
AACCTGGATAATGATGAAGGGATTGAAAATCGCT

Sequence 1696

TTCGGGAGTCGACCCCGCTCCGGGGCCAGCCGGCTCGCCCGGGGGCCATGGCAGCAGCGG
CTACTGCAGCCGAGGGGGTCCCCAGTCGGGGGGCTCCCGGGGAAGTCATTTCATCTGAATG
TGGGAGGCAAGAGATTACGTACCTCTCGCCAGACTCTCACCTGGATCCAGACTCCTTCT
TCTCCAGTCTTCTGAGCGGACGCATCTCGACGCTGAAAGATGAGACCGGAGCAATCTTCA
TCGACAGGGACCCTACAGTCTTCGCCCCCATCCTCAACTTCCTGCGCACCAAAGAGTTGG
ATCCCAGGGGTGTCCACGGTTCAGCCTCCTCCATGAAGCCCAGTTCTATGGGCTCACTC
CTCTGGTTCGTGCGCTGCAGCTTCGAGAGGAGTTGGATTGATCTTCTTGTTGAAACGTC
CTCTTCAATGGTTACCTGCCGCCACCAGTGTTCCAGTGAAGCGGCGGAACCGGCACAGC
CTAGTGGGGCCTCA

Sequence 1697

CGTCCGAAGGAAGGAAGGGACGGGCTGAGTTCCCCGACGAGAGACACACCCAGATTTTCC
TGCAGCTTGGGGAGAGGTCCTCCAGGAGCCTTGGTCCCTCCTGGCCTGCCGGAGTCCTT
AGCCAGGATGGAGGCTGTTGTGAACCTGTACCAAGAGGTGATGAAGCACGCAGATCCCCG
GATCCAGGGCTACCCTCTGATGGGGTCCCCCTTGCTAATGACCTCCATTCTCCTGACCTA
CGTGACTTCGTTCTCTCACTTGGGCCTCGCATCATGGCTAATCGGAAGCCCTTCCAGCT

TABLE 1

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CCGTGGCTTCATGATTGTCTACAACTTCTCACTGGTGGCACTCTCCCTCTACATTGTCTA
TGAGTTCCTGATGTCGGGCTGGCTGAGCACCTATACCTGGCGCTGTGACCCTGTGGACTA
TTCCAACAGCCCTGAGGCACTTAGGATGGTTCGGGTGGCCTGGCTCTTCTCTTCTCAA
GTTT

Sequence 1698

CGCGTCCGGCCGCGCCCATGGCCCCGCGCTGCCCGGCCGCGCGGGCGGGCCCGCCACGCC
GCTGTGCCCCACGCGCCTGTGCGGGCTGCAGGAGAAGGAGGAGCTGCGCGAGCTCAACGA
CCGCCTGGCGCACTACATCGACCGCGTCCGCGCGCTGGAGCTGGAGAACGACCGGCTCCT
GCTCAAGATCTCAGAGAAGGAGGAGGTGACCACGCGCGAGGTGAGTGGCATCAAGGCGCT
GTACGAGTCGGAGCTGGCCGATGCCCCGAGAGTCTTGATGAGACGGCTCGAGAGCGTGC
CCGGCTGCAGATAGAGATTGGGAAGCTGAGGGCAGAGTTGGACGAGGTCAACAAGAGCGC
CAAGAAGAGGGAGGGCGAGCTTACGGTGGCCCAGGGCCGTGTGAAGGACCTGGAGTCCCT
GTTCCACCGGAGCCGAGGTGGAGCTGGCAGCTGCCCTCAGCGACAAGCGCGGCCTGGAGA

Sequence 1699

ACGCGTCCGGAAGAATCTACACTTCTTTGCACCAGAGTATGGAGAAGTCACTAATGTGAC
AACAGCAGTGGACATCTACTCCTTTGGCATGTGTGCACTGGAGATGGCAGTGTGGAGAT
TCAGGGCAATGGAGAGTCTCATATGTGCCACAGGAAGCCATCAGCAGTGCCATCCAGCT
TCTAGAAGACCCATTACAGAGGGAGTTCATTCAAAAGTGCCTGCAGTCTGAGCCTGCTCG
CAGACCAACAGCCAGAGAACTTCTGTTCCACCCAGCATTGTTTGAAGTGCCCTCGCTCAA
ACTCCTTGCGGCCCACTGCATTGTGGGACACCAACACATGATCCCAGAGAACGCTCTAGA
GGAGATCACCAAAAACATGGATACTAGTGCCGTACTGGCTGAAATCCCCCAGGCCCTGAT
CTGCGCTGTGGCTGTCCCTGGGACGTGCTGCAGCCCTCCTGTCCCTTCCCCCAGTC

Sequence 1700

GGGAGTCGCCCCGCGTCCGGATTTCAGTTGGTGGCGTCATAGTCTCATTACAGTGTCTAT
CTTGGCATTACCAATTTACTTGTCTCTTTGTCCCACTATTAGGGATATCTTTGGTTT
TATTGGTGCATCTGCAGTCTCTATGTTGATTTTTATTCTTCTTCTGCCTTCTATATCAA
GTTGGTGAAGAAAGAACCTATGAAATCTGTACAAAAGATTGGGGCTTTGTTCTTCTGTT
AAGTGGTGTACTGGTGATGACCGGAAGCATGGCCTTGATTGTTTTGGATTGGGTACACAA
TGCACCTGGAGGTGGCCATTAATTGGCACCCTCAAACTCAAACTCAGTCCATCTGATGC
CAGTGTGAGTAACTCACTACTATGAAATTTACCTAATGTTTTAGTTTTCACTTCTCT
TTTGAAGTGCAGATTCTCGCTGGTTCTTCTGAGTGCAGAATAAGTGAACTTTTTTGTT
TGGTTTGNTTTTTTAAGAAAC

Sequence 1701

CCCACCGTCCGCGCGCGGCGCCTCGCCTCGGCCGGCGCCTAGCAGCCGACTTAGAACTGG
TGCGGACCAGGGGAATCCGACTGATAAATTAACAAAGCATCGCGAAGGCCCGCGGCGG
GTGNTGACGCGANTGCGATNTNCTGCCANNGCNTCTTGAATGTCAAAGTTGAANAAANC
CAATGAAGCGCGGGTAACGGCGGGAAGTAATAATGACTTCTCATTAAAGGGTAGCCAAA
NGCCCTTCGTCATCTNAATTAAGTTGGACCGCGCANTGAAATNGGATGAAACCNAGANTT
CCCACNTGTCCCTACCTACNTAATCCAAGGCGGAAACCACAAGCCAAAGGG

Sequence 1702

CGACCACGCGTCCGGACAGATTGATAGCTCTTCTCGATTCCGTGGGTGGTGGTGCATGG
CCGTTCTTAGTTGGTGGAGCGATTGTCTGGTTAATCCGATAACGAACGAGACTCTGGC
ATGCTAAGTATTACGCGACCCCGAGGTGCCTGACCAGTTCTACCGCCTGTGGCTATCCC
TCTTCTGCAAGCCGGGATCTTGCACTGCCTGGTGTCCATCTGCTTCCAGATGACTGTCC
TGCGGGACCTGGAGAAGCTGGCAGGCTGGCAGCCGATAGCCATCATCTACCTGCTGCTGG
GTGTACCCGGCAACCTGGCCAGTGCCATCTTCTGCCATACCGAGCAGAGGTGGGTCTGTG
CTGGCTCCAGTTCGGCATCCTGGCCTGCCTCTTCGTGGAGCTCTTCCAGAGCTGGCAGA
TCCTGGCGCGGCCCTTGGCGTGCCTTCTTCAAGCTGCTGGCTTGTGGTGTCTTCTCTT
CACCTTTGGGCTGCTGCCGTGGATTGACAACCTTGC

Sequence 1703

TABLE 1

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GATCGACTTCGCCTGACGGAATCCAGGGGTCGTAATATATGTAAACTCGCGTCCGNGCTG
CGTGCCCAAGTAGTGGCCGAATACCTTAACGGGGCTGTGCGCGAGGAGAGCATCCACTG
CAAGTCGGTCGAGGAGATCTTCGACGCTGGTGCAGAANCTGGCCGACCAGTCGGGGCTTG
ACGTGATCCGCATTTCGAAGCCCTTCCACACANGACAACCACTAGCATTACAGGGCCAGTA
GGCACCCCTTCACCAACAAGCTTGACCACGTGTCCCGCGGAACTANCGCACCCCCGAGNA
GGGTTCAANGNATTCCTTGCACCCAGCCCAGATGCCCTGGCTTNTGGGGGGNCAAGTGAC
CCTTTGTGNAACCCACTCATTTTTATGGCAAGGTGAGCATTNCCTAAAAACCCCTTGAAA
AATGANGGGAANAACCTTCAAGGGGTTTTTACAGGGCCCTTGGTTTTTTTTAAATCCC
CAANATTTGGATAATAAATGGAATCCTCAAAAACACAAGTGGAGGAAGGNTCTTGAAAGG
GC

Sequence 1704

TCGACCACGCGTCCGGCCGGAGAACTTGAGCCGGCTGCCCCGCCACGGTGCCCAAGC
CCCAAGGCTGGAATTAGGGGCTAGAAGTCTGGCACCCACCGCTGGCCAGGTGTTCCGG
ACGCGACCAGGTGGGCGGTGCCCCGCCCGGGAGCGCGGCTTAATAGCTGAGAGCCCGG
GGGCCAGGCCGNGGCTGCGGCCAGGCAACGCCCTGAGGGTGGCCACGCTGNCAGGTGTT
CCACTCCCCGGGACTATGGGCAAGGGCCCGGGGCGGGGAGGGCGGCAGGTGCTGACACT
GGAGCTGCGCCGGAGGTGCGGGAACCTCGGCCTCCTAAGACTGAGGACACTCGCCTGCTGG
GCOGNGCAGCTGTGCGGTGCCCTCCGGGACGCAGGGGGCGCTGCAGCCACGCTGGGTCA
GGCTCCGAAGGGCCCTCCAACCCGGGGA

Sequence 1705

CGCCACGCGTCCGGAAAGATGGAGGTGTGGGGACAGGAGCTGGGTGTGCTGGGGACTGGC
CGCGGACCCCTAACCTGTGTCTCCGGTCTCCCTCCGGGAGCGGCTCAACCCAGCCCATCG
CTCTGGCCCCGTTCTGGCCCTGCAGGGTGGTGGTTGGGACGTTGAAATGAGCGCGCGAGT
GGTACGTCTCTCTCCGCGCTCACGCCCCCTCCTACCGTGTTTCCCGCCAGGACCATC
AGCACGTGCCCATCGACATCCAGACCAGCAAGCTGCTCGATTGGCTGGTGGACAGAAGGC
ACTGCAGCCTGAAATGGCAGAGTCTGGTGTGACGATCCGCGAGAAGATCAATGCTGCCA
TCCAGGACATGCCAGAGAGCGAAGAGATCGCCAGCTGCTGTCTGGGTCTACATTCAT
ACTTTCACTGCCTAAGAATCCTGGACCTTCTCAAAGGCACAGAGGCCTTCCACGAAGAAT
ATTTTTGGC

Sequence 1706

TCGCCNCGCGTCCGCTGAAGCAAGAGAATCACTTGAACCCAGGAGGTGGAGGTTGCGTGA
GCTAAGATCGCGCCACTGCACTCCAGCCTGGGCGACAAGAGTGAAACTCCGTCTTAAAAA
AGCCCATGGCAGGCTGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCA
AGGTGGGCGGATCACAAGGTGAGGAGATCGAGACCATCCTGGCGAACACGGTGAAACCC
GTCTCTACTAAAAAAATACAAAAAATTAGCCAGGCGTGGTCTGTTGGGCACCTGTAGTCC
CAGCTACTCAGGGGGCTGAGGCAGGAGAATGGCGTGAATCCGGGAGGCGGAGCTTGCAAG
GAGCCGAGATAGTGTCACTGCACTCCAGCCTGGGTGACAGAGCGAGACTCCGTCTCAAAA
AACAAAAAGCCCGTGGCAATTAATGGTAAAGGAAACCCGGCTTTTAGTGTAAGAGGTA
CATAA

Sequence 1707

GCGTCCGGCCTCCAGCAAAGCCCATTCAGTCAGCTCTGCAGGCTCATCTTACAAGAATAA
TCCCTTTGCCAGCTCAATCTCCAAACATGGGGTTTCTTCTGGCAGCTCTTCTCGGGAGG
AACACCAGTCCAGAGTTCTGTTTCTGGGAGCCTGGTCCCTGGCATAACAGCCTCCCTCCGT
GGGACAGGCCACCAGCCGACCCGTCCCAAGTTCAGCAGGGAAAAAATGCCTGTTTCCCA
GAAGTTGACTCTGGTAGCCCTCCAGGCGGTCCAAACGGAGATTCCAGTGTTGGGACCCA
GGGGAGTGGCAAAGTTGCTGACCTCGCCGTCCCTAAAGCCCTCTGCAGTTAGTAGTGGA
CATCGTCTACCTCCTTGTCAAAAGGAGGCGAGTGGGGACTGTGCTGCTGGCCGCTCCTC
TTTGATGGCTTTACCCTACAAATCCAGCAGCCCAAAGCTGTCTGGGGCCATGAGCTCGAA
CTTCTTGGGAAATTATAC

Sequence 1708

CACGCGTCCGGGAAGCGGTGCGCTCCGTCAACACGGGAGTGCGGGAATCCGCCGTTTGCG

TABLE 1
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CTGAGGCAATGGCGGCAGCTGCGCCGGTGGCCGCGGACGACGATGAGCGGCGGCGGCGGC
CGGGGGCTGCACTGGAGGACTCCCGGTCCCAGGAAGGGGCAAATGGTGAGGCCGAGTCAG
GTGAGCTCAGCCGGCTTCGGGCTGAGCTGGCAGGCGCCCTGGCAGAAATGGAAACCATGA
AGGCTGTGGCAGAGGTGAGCGAGAGCACGAAGGCCGAGGCTGTGGCTGCGGTGCAGCGGC
AGTGCCAAGAGGAGGTGGCCTCGCTGCAGGCCATCCTGAAAGACTCCATCAGCAGCTATG
AAGCCCAGATCACCGCCCTGAAGCAGGAGCGACAGCAGCAGCAGCAGGGAAGTGTGAGGAG
AAGGAGCGGGAGCTGGGCGCCTGAAGCAGCTGCTGTCCCGGGCCTACCCCTGGA

Sequence 1709

CACGCGTCCGCGGACGCGTGGGTCCGCGGCGGCGTCCGGGGTCTCCAGTAGGGCTGACGC
TCCGGTGCTCGACAATCCCCGCCTCGGCTGGCAACGGGCGTCCCTCCACTCCCCGAGT
CCCCGGCAGCCGCCGCCACCCAGCGCGCCCGATCTGGCCCCCTGCCCGCGAAGATGG
CTGCCGTACGCCGGGCCCCGAGTTATTGCCGCTGCCTGGTGCGCTTCTCCGACCGAGAAC
TCTGCTAAGCTCCGCTGCAGAGACAGGCAGGAGTAGACACCCGGACACCCAGCACCCCTC
CTTCGGGGGGCGGTGCAGAGGGGGCACGGAGAGCCCTCGAGCGCAGCAGGCCGCCCGC
CAGCATGGCAGAAGCTGAGGAAGATTGTCATTCTGATACTGTCAGAGCAGATGATGATGA
AGAAAATGAA

Sequence 1710

ACGCGTCCGCGGAGTGCCCTTCCCGGTTGGCGCGCGCCCGGGGCGGCGGCGCTGGAGGAG
CTCGAGACGGAGCCTAGTTATGTCTGGGAGGCGAACGCGGTCCGGAGGAGCCGCTCAGCG
CTCCGGGCCAAGGGCCCCATCTCCTACTAAGCCTCTGCGGAGGTCCCAGCGGAAATCAGG
CTCTGAATCCCGAGCATCCTCCCTGAAATCTGGCCGAAGACACCCAGTGCGGCTGCAGT
CAGAAAGCCCATCGTCTTAAAGAGGATCGTGGCCCATGCTGTAGAGGTCCCAGCTGTCCA
ATCACCTCGCAGGAGCCCTAGGATTTCTTTTTCTTGAGAAAGAAAACGAGCCCCCTGG
CAGGGAGCTTACTAAGGAGGACCTTTTCAAGACACACAGCGTCCCTGCCACCCCCACCAG
CACTCCTGTGCCGAACCCTGAGGCCGAGTCCAGCTCCAAGGAAGGAGAGCTGGACGCCAG
AGACTTGAAATGTCTAAGAAAGTCAGGCGTTCTACAGCCGGCTGGAG

Sequence 1711

CNCGCGTCCGAAGGCACAGGCGTCTTGCTCTGTTGAAGCAAGTCAGTATCCGAGAAAAC
GCTGTTCCCTTTGTTGTGATGAGGTAGCAGACACACAATTGAAGCCATGTGGACACAGTG
ACCTGTGCATGGATTGTGCCTTGAGCTGGAGACCTGCCATTGTGTGCTAAAGAAATAG
TATCTAGAATCAGACAGATTTCTCATATTTCTGACACATGTGAAGAGGCATCGTGGACT
TTTTTCTACTCAATTCAGCCAATGTTGAAAAGAAAAAGAAAAAAACTCTAATCAGT
TGTACACACATTGAACTTATAGCCATGGCCAGATTTTATGCTAAAAATGGTAGTTTGTG
AAAGACAAAATTCTCTAGAATCTAATCCAATTTGCCAGCCCTGAGAAAATCCCTTTTAA
GGCCAAGGGAAAGCTGAATGCTAGCAGCCAGGCCTGTGGTACTTCCATGAGAAACCATAG
CAGGACAATGCCCTC

Sequence 1712

CCACCGTCCGGGCGGCCAGAGGTGCGAGAAGGCCGAGGAGAAGGCCAAGGAGATTGCGAA
GATGGCAGAGATGCTGGTGGAGCTGGTCCGGCGGATAGAGAAGAGCGAGTCGTCTGAGC
GCGGTCCGGCGGTTTCCAGCCAATGGATTCTGGTCAACTGGTGGAGATTGGCTGACACCCT
GGAGAAGCCGAAACCAGAGAGCCTTTTGTCTTTCTCTTTTCTCTGTCTATGCTCTGTCTC
ACTTAACACTACGTTTTCTGCTATGGTCTGTGGTTGATGACCTCAATATGAGTTTCGATT
GTTAACCGTGTTTTGTTTGGGAAGTAATTTTGTGTTGAAAATGCTCTCACATACAGGAAT
TAGGGCCTAGATTGTAAGCTCTTGACAGCAGTCACATTTGTTCCCGGGCTTTGGTGGTTAT
TTTCTAAATTTTTGAGGTGCCTTTGCTATTTCTTGTTGACCTGATAGCTTCCCTG

Sequence 1713

GCGTCCGAGCCTCTGGGGGTGGATCCTGAAAGGTGGTCCAGCCGCCTGGCCCTGCGTGGG
ACCCTCCACCTGGCAGCAGGGTCTCGCTCTGTACACAGGCTGGAGTGCAAGTGGTGTGAT
CTTGGCTCATCGTAACCTCCACCTCCCGGGTTCAAGTGATTCTCATGCCTCAGCCTCCCG
AGTAGCTGGGATTACAGGTGGTGAATTTCCAAGAGTGAATCCGTCGGAGGAAAATGACTCC
CCAGTCGCTGCTGCAGACGACACTGTTCTGCTGAGTCTGCTCTTCTGGTCCAAGGTGC

TABLE 1

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CCACGGCAGGGGCCACAGGGAAGACTTTCGCTTCTGCAGCCAGCGGAACCAGACACACAG
GAGCAGCCTCCACTACAAACCCACACCAGACCTGCGCATCTNCATCGAGAACTCCGAAGA
GGCCCTCACAGTCCATGCCCTTTTCCCTGCAGCCCACCCTGCTCCCGATCCTTCCCTG

Sequence 1714

GTCGCCACGCGTCCGCAGAAGATTGACAAATCTGAGGGCCGCTTCCATGTCCAGAACCTT
AGCCAGGTGGAGCAGGATGGGCGGACGGGGCATGGACTCCGCAGATCTTCCAAGTTCTGC
TTGAAGGAGCACAAAGCCCTCAAGACGTTAGGCATCATCATGGGCACTTTCACCCTCTGC
TGGCTGCCCTTCTTCATCGTTAACATTGTGCATGTGATCCAGGATAACCTCATCCGTAAG
GAAGTTTACATCCTCCTAAATTGGATAGGCTATGTCAATTCTGGTTTCAATCCCTTATC
TACTGCCGGAGCCCAGATTTCCAGGATTGCCTTCCAGGAGCTTCTGTGCCTGCCGAGGTCT
TCTTTGAAGGCCTATGGCAATGGCTACTCCAGCAACGGCAACACAGGGGAGCAGAGTGGA
TATCACGTGGAACAGGAGAAAGAAAATAAAC

Sequence 1715

CCCCCGTCCGCTTTTGTNATCTAAAGGCTTNAGTCCCATTTTTTTATACGTTGTATTTT
AAAAACGTTTGAAAGGAGTCTTACACCTGTATCATGAAACTGAATCCTTTTGAAATACC
ACTATATGAAGAGAGAGATGAAATTTAGTGAACAGAATTGGAAAAGGTGCTCATAATTC
ACTATGCAAACCTACCCAGTCTCTAAAAAAGTAATTTAGATTTAAAGTTCTTTGATGTA
TTTGATTTTCTAAATCTTTATGGTTATGATTTGGAATAAAATGTGCCTAATCCTGTGTTA
CATTCTGTTCTTAAATCTGAATGCCTTCTCATTTAATTCTGAGGAAATATCACACAAGTG
TCTTCATTGACCTTGAAGAAATGTATATACAGTTGCCTTATAAAACAACATAAATTTAGA
CCATAACTTTTATAGAGAAAGGGTTTTGTCAAATGTTTTCTGAAAATCTGAGTAATTCAA
AGCATGCCTCTGCCCTTTAATA

Sequence 1716

NGTCGCCACGCGTCCGGCGCTCTCGGCCGCCGCCGCTCTGCGTGGGCCGGCCGGGAGGG
CCTCGGGGACTGACTGACAGAGTTTCACTCCTGTTACCCAGGCTGGAGGACAATGATGT
GATCTCGGGTCAACACAACCTCCGCCTCCCGATTCAAGCGATTCTCATGCCTCAGCCTC
CCGAGTAGCTCAGATTACAGGCATGTGCCACCACGCCCGGCTAATTTTGTATTTTCAGTC
GAGACGGGGTTTCCCATGTTGGTCAGGCTAGTCTTGAATTCCTGACCTCAGGTGATCTG
TTCGCCTCGGCCTCCCAAAGTGCTGGGATTACAAGGCGTGAACCACTGCACCCGGCGAGG
CATTTTTTACTGTCTACAGAACTTATTGTAATTCATTTTTCTCACTCCAAGTAGTAAG
AATTATACCAAATTGAAAAGATATGAATGAGTATCCTAAAAAAGAAAAGGGA

Sequence 1717

CCGAGGCNCTGATAAGCCNTGGTAACGGGAAACACAGCTCTAACCTCACCTCATTCTCCA
GGTTACAAAGGCCATGTGCCCTTTGAATCTGGCAGAGAAAGTTTCTCGTTGTAAGTAT
TTGCATCTACTTCAAGCCAGATTCTTCTGCCTCTTCTCCTTTCCAGACCCCTACTCTGT
GCAGTGCTGACCACAGCTAGAGCCACCGCCCCATTGCTCAACCAGTATTTATTTCCCTAA
ACGACCCTTCTCATATTCCTTCCCTCCACCTCTCCTTACCAAGCACCCAAAAGAGGAT
TTAGAACTAGCAGGGTGGACATCATTCTGGTTGTTTCTACTTTTCTCTGCCTAGCACAAA
ATTGGGAGAAAAGTGGAGCCTCCATCCGCAGTCACACGTGTACAGATCTGGGNGATTTGG
ATGTAGGCTTTTTCTAACTTCTCTCTCAGAAGCTTCTACA

Sequence 1718

CGGACGCGTGGGTGCCGCCGCCGCGTCTGCTGCTAGTCGCCGCCGCCGCTGCCGGAGA
AAGACACGAGCGGGGAAGCCCCAGAGTGAAATCTAGCATCCTGCCGGCTGGTCTGCCCG
CCCTCCTTCTTTCCCCCGGCCCGTCCCTCCNCCGCAGGTGCCATCCGTCCGC
ATNCGCCTCTCTACCTCNATCCCCAGGTGAGGGGGGTGAGTTCAGGAAGCGGNACCC
CNAGGAACCCANCAGGGTCAACATTTGCAGCGCAACATGGCAGGAGCTGGAGGAGGAAAT
GATATTCAGTGGCGTTTTTTTTCAGGTGAAAGGAGCAGTATGATGATGATGTAGCAGNAAG
CANGATATNATTTCTACAGTANAATTTAATCNTTTCTGGGAGAAATTCTAGCAACANGAA
GATAAAAGGTGGGTAGAGGTTGTATTCTTTCAACAGGGAGCAGGGAGAAC

Sequence 1719

TABLE 1
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TCCGGCCGGCCAGCGTCATCACCATCGTCAAGTCCACCCCGGGCTCGGGGTCTGGCCCCG
CCCACGGNCCGGACCCCGNCCACGGCCCGGCACNGCNGCTCCTAGTGCCCGCCCCCGCCA
TGCTCANCCACGCCCCACGGCCATAGNTNCCCTCCCCAAAGNGCNCTGAGGCGCATG
NCTTCNTGNGACNCAANGNTCCCATNTCTATTGCAGGCAACATGGCCATTCCCCGAAAC
TAAAAAGCAGTTGGGGNGGGNGAAAGTACNANGTGAAAACCCAGNNATCACCGGNANTG
GNGGGAAAAACAANGGCCNGNAGGGACACATTTCCAACTTTAAGCTGGGCNAGTGNNTGGG
GAACCAAAAAACCTGGGGNGGNCCCNTCANTGGCANGGCCNTGAGNNCNCAGNCATGN
GCATTTNCAGGGNNGAACCAGNNGGACAAGGGGGACCTCAANAAAAATGNTGGNTGGGG
ANGGGCCCANTCNETGGGCNNGGGGGAAGAACCCGNATTCTACNAGCAAAAGGGGGANGGG
GGGGACNCAGCAAAGGCAATCANGGGAAGAAGGAAGATAAGGGTCNACCANCGGGAATNG
GCAAAGAAANGGGGAA

Sequence 1720

CTGANGCTCGTTTTCTGAAATTAAGCTTCAGAGGGAAGCCCGNGAAACACAGGAGAGCG
AGCGCAAGCCCCACCATACAAGCACATCAAGGTGAATAAGCCTTACGGGAAAGTCCAGA
TCTACACAGCGGATATTTTCAGAANTCCCTNAGTGCAACTGCAAGCCCACAGATGAGAATC
CTTGTGGCTTTGATTGCGAGTGTCTGAACAGGATGCTGATGTTTGAGTGCCACCCGCANG
TGTGTCCCGCGGGCGAGTTCTGCCAGAACCAGTGCTTCACCAAGCGCCAGTNCCCAGAGA
CCAAGATCATCAAGACAGATGGCAAAGGTGGGGC

Sequence 1721

CATGGCTTCTGCGAGAAAAGTGATTTAGGCAGACGGAGGTTTTTCTCAATCAGAGGCTT
TCAGTAACTCTGCTGATGCACAGAGAAGAGACTTCCTCAGCCTGCAGGCTACAAGAGCCA
ACTGTTAGTGCAAAAAAGGACTTTAATACAAATTTCTTATTCCAGAAATTTTGTCCAGG
TCTGGACAAGCTGAGAAATTTATCATTGTTTTTCGAGTTTTTAAGATACCCACTTTTTCT
GAGAGGTATGGGTGTGTGTGCAAGGCACACACATACAGTCTTTCTGTACATGCATGCATA
TTTATGCATGTACAGGGAAGTATCCAGACACCAAATTTTAAATAAATGAATTCCCCAAA
GGGGAGTCTTGACCTGAATTAAGGCTGTTGTTTATAGGGAAGCCAGATATAATTGATGNT
GAAAAANAACTAATTTTTATACTTAATCACCGGCAGNTANCGGGGGCANGGGGGAAAAA
GTACAGANGGGGTGATTTTTTGGTTTTTTCT

Sequence 1722

TCGCCACGCGTCCGCTCTTAACACAGAGTCTGCAGCCCCTAACTGACACCCTGTCCCTCC
TCCTAGGAAGTGCTGGACTCCCTGGTCAGCAATGTCAACATTGAGCTGCTCAATGCCCTC
CGCTACCATATGGTGGGCAGGCGAGTCCTGACTGATGAGCTGAAACACGGCATGACCCTC
ACCTCTATGTACCAGAATTCACATCCAGATCCACCACTATCCTAATGGGATTGTAAT
GTGAAGTGTGCCCGGCTGCTGAAAGCCGACCACCATGCAACCAA

Sequence 1723

ATCCGGTTCGCCCCNCGTCCGGGCGGCCGAGGCGGAGGCAGCGGCGGGGATGGCGGAC
GCCAACAAGGCCGAGGTGCCCGGGGCCACTGGTGGCGACAGCCCGCACCTGCAGCCCGCA
GAGCCGCGGGCGAGCCGCGGCGAGAGCCGCACCCCGCGGAGGCGGAGAAGCAGCAGCCG
CAGCACAGCAGCAGCTCCAATGGCGTTAAATGGAGAATGATGAATCAGCAAAAGAAGAG
AAATCTGACTTAAAGGAAAAATCTACAGGAAGTAAGAAGGCCAATAGATTTTCATCCTTAT
TCAAAAGACAAGAAT

Sequence 1724

GTCGCCNCGCGTCCGTGCTTTTTTCGACATACTGGTTTTTCTTCTGTTTTCTTCTCT
TTCTTCTATTTCTTGTGGATATTATGGCTAATAACACAACAAGTTTAGGGAGTCCATGGC
CAGAAAATTTTGGGAGGACCTTATCATGTCCTTCACTGTATCCATGGCAATCGGGCTGG
TACTTGGAGGATTTATTTGGGCTGTGTTTCAATTTGTCTGTCTCGAAGAAGAAGAGCCAGTG
CTCCCATCTCACAGTGGAGTTCAAGCAGGAGATCTAGGTCTTCTTACACCCACGGCCTCA
ACAGAAGTGGATTTTACCGCCACAGTGGCTGTGAACGTGAAGCAACCTCAGCCTGGCCA
GTCTCACCTTCAGCGACAAGCTTCCCTGGAACAAGCAAATTCCTTTCCAAGAAAATCAA
GTTTCAGAGCTTCTACTTTCCATCCC

Sequence 1725

TABLE 1
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AATNTGCCAGCCTTTATTGAGCTTTACAACCTGATAGTTGGCAGTTAATTCAC
AGTTACAGATAATGCTTTTATTTACATAAATATACCAAGTAGTACCCTCTTATTGTATTC
ACTTCATCTATTTTCTTAGAATACTTGCAATTTCTAATGACCCCTTCCCTTTCCCTCCTG
CTGCCCTGTCCACCCTCTTTCCCTTCTAACATCCTTAGAGGGATGAAATCTCAGCATAT
GTTGCAGGACACCAAAAGGAAGAAAACAATCAAGCAAATAAAATAAACAGTCAAACAAAC
CAGGAGTTTAAAACAACAACCCCAACAACAGAAGCCTTGGCAAAGAGGAATGAGTGATCA
GCAAGTGAACACACTCTATGTCAACTCTCCTTTTATCCAGCTGAGATTTTATGGTAACC
TTTAATTTAA

Sequence 1726

CCNCGCGTCCGGAGCCGAGAGTGTGTGGAGCAGTTACAGCTGGAAGACCGGGTCTCTGC
CTCCACAGTAGATGGCTGAATCCTCTATGCGGGACTGGCAAATGGCACTGTGGTCACCTT
CAACATAAAGAACAACAACGACTTGAGATCTTTGAATGCCATGGCCCTCGGGCAGTCAG
CTGTCTTGCTACAGCTCAGGAAGGTGCCGAAAACCTGCTGGTCTGGGGTCTTATGACTG
CACAATTAGTGTACGCGATGCCGGAATGGACTGCTCCTCAGAACTCTGGAGGGCCATAG
CAAACCATTTCTTTCATGAAGGTGGTGAATGATCTCGTGTTCAGTGGCTCCAGTGATCA
GTCAGTCCATGCTCACAACATTCACACTGGTGAAGCTCGTGCGGATCTATAAAGGTCACAA
TCATGCAGTGACTGGTGGTGAATATCCTAGGAAAAGTGATGGTGACTGCTTGCCTGG

Sequence 1727

CNCGCGTCCGGATNAATATTTTCATCCCTGAGGTTAACAATTACCATCAAAATGTTTTGT
GGAGACTATGTGCAAGGAACCATCTTCCCAGCTCCAATTTCAATCCATAATGGATGCC
CAAATGCTAGGAGGAGCACTCCAAGGATTTGACTGTGACAAAGACATGCTGATCAACATT
CTGACTCAGCGCTGCAATGCACAAAGGATGATGATTGCAGAGGCATACCAGAGCATGTAT
GGCCGGGACCTGATTGGGGATATGAGGGAGCAGCTTTCGGATCACTTCAAAGATGTGATG
GCTGGCCTCATGTACCCACCACCACTGTATGATGCTCATGAGCTCTGGCATGCCATGAAG
GGAGTAGGCACTGATGAGAATTGCCTCATTGAAATACTAGCTTCAAGAACAATGGAGAA
ATTTTCCAG

Sequence 1728

TCGACCACGCTCCGATCCTGGATCTGGAGAGAGAGCTCTCCAAGCAAATCAACGTGTGC
CTCTGAGCCAGATGACGGGGTGGGACCCCGTTAGTAAGGACCGGGCGCCAGTGGCTAA
GGCGGTGCCCTGGTGACCAAGGAGAGCCAGACCTGTTGCTCAGGCCGAGCTCCTGGTTGC
CAGCGAGTTACCACGGGACCAGTCGCGTGTATGGCTGAGACTCATTCCAGTTTCCAGGG
CCCGGTATTTGGACACTAGTTGCCAAGTCTGGGGCCTGGGGATTTTAGGGACCAGCGTT
GTGACCATCTTTCCTGAGCACCAAGGGCTTCCCTTTTGTGCCAAAAGGTAGTTCTCG
CGCTTGCTAGGCTGGCCTCTCTTGCTCCCTTGGCCGGGGC

Sequence 1729

TCCGAAACACCTGTCATTTTACACAAATGCGTTTTGAATGTCTGAAAGACAGCTCCTGCC
CTTAATTTAGATGTAAACCATTTAGTTTCAAACCTAACCACCTGATAAAATCTATCAACAT
TTTATCATGAACTAGAGCAGATGTCTGTTATTTGATGTCTATGTTATTTGAGTTTACTGT
TTAATAAGTGAATTCATATCAATTAATCCTGCTAACAAATTTGACACTTAAGGTGATTCT
GAAAATCCTTTAACTTAAAGTAGATGGAATCTTAAGTATGGGGCCTTTTAGTGTCGTA
AAGAAAACTGCATGCAACAAAATATAGCAGGTCCTCACTTGTGAGATTCATGGAAATT
GTGACTTTAAATGAAATGACATGGCTGGGCATGGTGGCTCACACCTGTAATCAGCACTTT
GGGAGGCCACGGCGGGTGGATCACGAGGTCAGGAGTTCAAGACCAGCCTGGCCAACATGG
T

Sequence 1730

CTGNAGATTAAATTGGTCCAGAAACAGTTATGACCCTCTTTATACTGCCAAGAAATACGC
AGTCCCAGCCTTGAAGCACACTGTGTAGAATTTCTACCAAACATCTTAGGGCAGATAA
TGCCCTTATGTTACTTACTCAGGCTCGATTATTTGATGAACCTCAGCTTGCTAGTCTTTG
TCTAGATACAATAGACAAAAGCACAATGGATGCAATAAGTGCAAGGGTTTACTGATAT
TGATATAGATACACTCTGTGCAGTTTTAGAGAGAGACACACTCAGTATTCGAGAAAGTCG
ACTTTTTGGAGCTGTTGTACGCTGGGCAGAAGCAGAATGTCAGAGACAACAATTACCTGT

TABLE 1

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GACTTTTGGGAATAAACAAAAAGTTCTAGGAAAAGCACTTTCCTTAATCCCGGTTCCAC
TGATGACAATTGAGG

Sequence 1731

ACCCCGGTCCGAGCAGCCTCCAGTTGCCCTACTTAGTGGCTTGCCCTCTGCCTGCCTC
AGCTGCTGCCTGACCGGCTGGGGGAGGCACTGGCGGGAGGCCTCGGGCTCCCCTGGAAGG
GCGCTGGGCTGGCGGGTCAGCTGGTGGTTCTTAGGTTTCCTTCTGTTTGTTAAAGGGAC
AATGTGGCCACTTCTCTGTGGAAGGGAGTTGGTTGGGGGGTTGAGATGGCCCGTGTTC
TAACTCAGTTTCCTGTTTTGCACGATGTAACAAACCCTGTCTTTTGCACGATACAGCCAA
AAGTATTGGCTGATTTCTTGCTGAGTGCCCTCTTAGTTGGTGTGTGAGGTCTTGGTGGGC
TCAGGCCAGCTGTTTTCGAGTGTGGGAACCTCATAGTTCTGTCTTTGTCTCTTCTTCA
CCTCATTCTGGTAGCAGCATAAAGGTTAGGCAATCACTGGGACCC

Sequence 1732

GCAAATCATACATTGCATTCCCCAAAGCATCTGAACGTACTTCTAGAAAACAAACCAACC
AAAAGGGAAAATATGCATGCTTTTTGTAATTAAGTGGTCTTGAATCTTTTTTAAGG
GAGAAAAATCTCAACCAAAGTTATGCTCATCCAGACAAGCTGACCTTTGAGTTAATTTCA
GCACAACCTCATTCTTCAGTGCCTCATGACTGAAAACAAAAACAAAAAAGAAAGCATCT
TCNCAATGAAGCTTCCANATAGCACCGTTTTGCTAAAAGATACATTCTCATTGTTTTCCA
ACAGNGATGGCTTCCACATAANGGTTAAACAACTGGGNGCTTGGAATAATTTNTNACN
GGTTACTTNTTCGCATTTTTTNGAACNAAGGAAANGGATTCCCTTTTTTAGGGGGGAA
GAATTGNGNCAAGTTTAAAAAANAAAAAANAAAAA

Sequence 1733

CGCGTCCGAATTTAGGAAGACCCCGGCGACCTGTTCTCACCCCGCTTCGCCCTCACAC
TTTCGGGATGTCTGCGATTCTGCTGAGGAGAGCGACCAGCTGCTGATCCGACCCCTTGG
AGCTGGGCAAGAAGTAGGAAGATCATGTATTCTCGAGTTCAAAGGAAGAAAAATAAT
GCTCGACTGTGGGATCCACCCTGGCCTAGAAGGAATGGATGCTCTTCCTTATATTGATT
AATTGGACCCACCTTGGAATTGNACCTCCNANTANNTNANNNCATTTTCATTTTGAANC
NTGGGGGGGCGTNNCCCNNGGTTTTTCNNAANANNCCTTNAAANGNNAAAAAATTT
TTTTNTTTTTNTCCANAAAAAATTTTTTTNAAAAANNCCTNNTNTNAGGGGNTNT
TNAAAAAATNCCCCAAAAAANNNNCCCCCTTTNTNTNTTTTNAAAAAAANAAAAA
AAAANATNGNCCCNNAATTTTTTTTTATTTTTNANNAANAAAAANNTTTTTTTN
AAAAANTNTATNTTTTTTTTNNNTNANNNNGTGNNNNCCCNNTTTTTTTTTTT

Sequence 1734

CCACGCGTCCGCTCCCGCCAGGCGCTTCTCGGACGCTTGCCAGCGGGCCGCCGACC
CCCTGCACCATGGACCCCGCTCGCCCCCTGGGGCTGTCGATTCTGCTGCTTTTCTGACG
GAGGCTGCACTGGGCGATGCTGCTCAGGAGCCAACAGGAAATAACGCGGAGATCTGTCTC
CTGCCCTAGACTACGGACCCTGCCGGGCCCTACTTCTCCGTTACTACTACGACAGGTAC
ACGCAGAGCTGCCGCCAGTTCTGTACGGGGGCTGCGAGGGCAACGCCAACAATTTTAC
ACCTTGGAAGGTTTGCNACNATCTTTGTTTGGANGANTAAAAAAGGTTCCCAAAAT
TTCCCNCTTTNAAAAGANNNTNGNGACCNNACTNNGGGGGGGGGCCCCAAAAAATTT
TTTTTTNTTAAANNCCCCCGGGGNNGNAAAAANTTTTTTTTGGGGGGGGNCCCCCCC
NNGGGNNAAAAANNTTTTANAAAAAATTTTTTTTTNTTTTTCCCCAAAAAATTTT
T

Sequence 1735

GCGTCCGAAAATACAATACACGGAAGTCTTTCGAGGGCCCTGTAATTGGAATGAGTCCACTT
TAAATCCTTTAACGAGGATCCATTGGAGGGCACTTCCAGAATACCTCCTCCCCAGCGCC
CGCTGCCAGCCCCACACCAGGTGTGAGAACCAAGGTCTGGTGGAGGCAGCTCCAGGCACT
GCCAGTCCGACACAACCTGCAAAAATCCATTAGAGCCACTGCCCCAGAGATG

Sequence 1736

CGAACCTCCTGGTTCCAAGTGGGAGACATGGTGCTGTCGGAGCTAGCGGCGCGCCTCAAC
TGCGCCGAGTACAAGAACTGGGTGAAGGCGGGCCACTGCCTGCTACTGCTTGCGCAGCTG
NCTGCAGGGTTTCGTCGNCCGCNAGGTGCTCTCCTTTCCACCCGCGGCCTACTCGCCGCA

TABLE 1
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GCCCCCGGC

Sequence 1737

ATCCTTTTGCCTAAAGATGTAAACAAAACCTCAAGACAGAAGGAATCAGGGAATATGTGCT
NTTGTGNGCATCTTGTTTACATTTNNGGATCAANTGATGGCAAAGAAGTAATGAGACCA
CTNNAATTTGTTTTNCANTTGNNTTTAAANACCAGGGTTCTCATTTTCTTTGATTTTG
NAAGTTTAAACAATTGACCTTCTTAAGNGACATTCTCTTCAAAAAGANANGTAAANCA
GGNGAAATGAAGGGTGGNTGGGGAAA

Sequence 1738

CCGGCTCATTCCCTGAGGCCGGCCCCGCGTCCCGTCAGGGCGCCGCGCGGGGTAGCGCGG
GGTCAGCGGAGGTGAGCGGGGGTCAAGCAGCGGCTCCGAGGGCGCGGCGGACGCAGGA
TGTACACGCTGCTGTCGGGCTTGTACAAGTACATGTTTCAAGAGGACGAGTACTGCATCC
TGATCCTGGGCTGGACAATGCTGGGAAGACGACCTTCTGGAGCAGTCGAAAACCCGAT
TT

Sequence 1739

GTCCGNCCACGCGTCCGATTTCTTGTTGCTTTGAAAAAGTTTCAGCTTGCTGTCTCTT
TLAGTGTTTTAAAGAAGTGTTATACAAAGCATTGTTTGCAAATATAGGGAGGATAATGG
GAGTCCCACTTTAANTTNGGGAANTCNTTGGNGANCTTNTTNATCCAAGGTTTANTCAA
GCCTTCNTTTTCCAACTTTTAAAAATTTTTGTTAAAAAGCCACCCTTTGCTTTANGA
AAAAATTTTTAAAAATTTTTANTGTTCTTGCNACCAATTTGTTCTTAAAAAATAATA
AAAACCTTGNTGGCAAATTCNTTGGTCNNTTTAAAAA

Sequence 1740

ACGCGTCCGCAGCCATCTTGGGATCTGGGCAAGTGAGCGAGCTCCTTCCTCACCGGGCTG
ACTAGCCTCTCCTTTCCCTGTCCCCCTCCATCGCTGCTCTGCAGGAAGCCAGCCCCAGG
GCCAGTCCCGGAGGGGCTGATCCGCATCTACAGCATGAGGTTCTGCCCTATTCTCACAG
GACCCGCTCGTCCCTCAAGGCCAAAGACATCAGACATGAAGTGGTCAACATTAACCTGAG
AAACAAGCCTGAATGGTACTATACAAAGCACCCCTTTGGCCACATTCTGTCTGGAGAC
CAGCCAATGTCAACTGATCTATGAATCTGTTATTGCTTGTGAGTACCTGGATGATGCTTA
TCCAGGAAGGAAGCTGTTTCCATATGACCCCTATGAACGAGCTCGCCAAAAGATGTTATT
GGAGCT

Sequence 1741

CANCGCCCCGGCCCGNTCAAGCAGCNTAATAAAGCTCATANAGGCGGACNNGGCATCNGGG
TCTNNGGATCTGCACAGCGGGACTGGCATAGGGCCGTCTGGCACTGAAAACCCTAANCA
GAAGGTGTGAAAAGAACTTNAGCNGANNCGACCNAGGCATCNNGCCAGCCAGCTCCG
AAAGCAGAAGANGGAGGCGGTTCTGGCATGAGAAAGANACAGCTGGGCTGGCNAGGATAG
GCCCCCTCCTTCATCAAGGTACTGGTGGTGCCCTGCACAGNANAATTNTNCCTGCCAGAG
GCCATGCANCCTGCTTCAAGATAGGGACACTGGAACAGATACACTTGAATGAATTGGGGA
AACACCCCAAGAACTTT

Sequence 1742

CACGCGTCCGTTTTTTNCAAGGGTCTATTGTTTCGATTAGTTTCCTTGCAGGAGGTAGAA
GGTTTCCTCCATCCCGAGTAATTCATAGAGTGTGTTGGCTTGNCTACCTTCCTCCTGACTG
AAGTCACCTGATACTTTTTGTTTTTCAAGAAGGAAGAGAGAACCCTGTTGCCTCAGTTA
CTAGCAATGATACAATTCTCAAAATCTGGTCTTTTTTGTCTTTGAAATAGTTTCTCC
ATGTTGTGTGACACAGCAGCCCTGTCTTATCATAGTTGTCTTCCCTCCACCACCTGTAC
CAGAGATGTTGGATATGTTGGAGGTGAAGGTGTGCAAGGTTTTAACTAACTGTTCTAAT
TAAAGGATTCTGCAGGAAAGAACATGGGTTTACAAAAGAGAAGCTTTTGATTATTAGTA
ATTTTTTTCTTTGATGAATTTATGTGCTTAGTTTGGAGAATCGAGAGTTGGCTGGGAAA
AGATTTCTGAGGAGTTAAGGGACTCTGGTGTCTTTGGGAA

Sequence 1743

GTGATTAGAAGTAAGCGNTGATGAGGCTGAAGAAAAGGAAGACAAAACCTGAGTACTTGA
GGAACGAAGAGTAATGGGATATCCAATAAACTGAGAATGTTTCTTCAATCTCCTTTAT
TCTTCGTTCTCCAAGTACTCAGTTTGGTCTTCTTTCAGGTGTAGGAACGTGATAAAGAA

TABLE 1
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GTAAGCGATGATGAGGCTGAAGAAAAGGAAGACAAAGAAGAAGAAAAAAAAAAAAAAGG

Sequence 1744

CGATTTCTTTGTTGGACAACCCAGCTGGGGCTAGGAATGGTTCAGAAGGTTTAAGGCCGG
AANGGGNAATGAAGGGGCCCCGGCGCTAACCCCTCTAGGGACCTGTTTTGCTTCTGTTTAA
CCAAATGGGCAGTCTGTCATTACACACACCCTGNGTCTTCATATGTGGCTCGCCAGTATA
ATGGAATGTGCTTACAAGGGCCAGCAGGAGTGCCTGGTCGAGACGGGAGCCCTGGGGCCA
ATGGCATTCCGGGTACACCTGGGATCCCAGGTCCGGATGGATTCAAAGGAGAAAAGGGGG
AATGTCTGAGGGAAAGCTTTNAGGAGTCCTGGACACCCAACTACAAGCAGTGTTTCATGGA
GTTTCATTGAATTATGGCATANATCTTGGGAAAANTGCGGAGTGACATTTACAAANATGC
TTTTCAAATAGTTGCTNTAANANTTTTGTTTCAG

Sequence 1745

GGACGCGTGGGTGGAAATGTAAACAAGAATAGACTGTTTCATTCTGATGGCTTTTAGTCT
ATACTAACATATTGTTTGTCTATGGCATCCGAGACTGAAAAGACCCATGCTTTACTGCAGA
CTTGTAGCACTGAATCTCTTATTTCCAGCCTTGGGTCTGGGGGCATTTTGCTCTGATGCT
GACAGACTTCTTCAGTTTTCCACAATTCAGCAAAATGACTGGCTTCGTGCTCTCTCAGAT
AATGCAGTACATTGTGTAATTGGCATGTGGTCATGGGCGGTAGTCACTGGAATCAAGAAG
AAGACTGACTTTGGAGAAATCATTTTAGCTGGATTTTTCAGCTCTGTTATTGATGTAGAC
CACTTTTTTCTAGCTGGATCCATGTCTTTAAAGGCTGCTTTGACTCTCCCGCGAAGACCT
TTCCTTCACTGTTCTACTGTGATCCCGTTGTGGTTCTGACCCTGAAATTTACTATGCAC
CTTTTCAAGCTCAAAGACTCATGGTGCTTTCTTCTGGGATGGTATTTATATCC

Sequence 1746

GTGAACAGGNTATTGACTATGGTAAACTTATTTTATTGAAGTTTTCAACCGGAAAATAGT
AAGTGGAATATGATACAACCTGTTATTTTCAGAACATATTTCTTTAGGGCTATTTAAAATA
ACCTTTTTAAAGGGCAAAAACCTTTCAATTTGAGAGAACAAATTCCTCTCCTCTGTGGGAA
ATATTGGCTGAGATTTTGTATAGAATAAGAGACATGTATGTAAACATATATTTATATTCAG
CATAAGTCTACTGCAATCATGTACACATCTTAGCAAGACGAGAGGATTTTGTTCAGTCTT
TGTTTATGACTTCTACAGTTTCCTGTATCTAGTGTTAAGTTGTAAGGAAAACTAAACAT
GCAATTTAAAGGTAACTTGATAACTATTTATGGAACATAAGCATAACCAATGGTTATT
TCTCACAGTTTTTCATGCGCATTTGTTTATTGTTTACTTGGATTAGGCTCATTAAAAACCA
TAATGCTGGTCACAATTAGAATGCTAATATTTGGGGAAGCTATGCAGAAAATATTT

Sequence 1747

CNTGTGTGCCATGTATACCTAACGGGAGTCCCAGAAGACAGGAGAGAAAAAAGAAAGAA
ATAAAAAGAATATTTGAATTTAAATTTGCTTGAAAATGTCTCAAATTTGATGAAAAATAT
TACTCTGCACATTCAACCCATGAACATAAGTTGTATAAAATCAAAAAGTTTCACACCAA
GGCGTGTCTAGCCAACTGTCAAAGCCAAAGACACAGAATCTTGAAAGCAGTGAGAGC
AAAGCAGACAAGGGATCCCCAATAGGATTAACAGCAGATTTCTCATCAGAAGCCATGCAA
GCCAGAAGGCTATGGGAGACATACTCAAATGCTGAAATAAAAGACTGTCAACAAACATT
TCCACATCCAGCAAAAATCAAAAACGAAGGAGAAATCTGTTGCATGTGAGCTGAATAGAA
TTTGATTCTGCTGTTGTTGGATTGAAGTATTTCTTAAATGTCAATTANATCAATTTG

Sequence 1748

CGATGGCAATACATGTACTCAGATAGTTACATCCCTATATAAAAAGTATGTTTACATTTA
AAAAATTAGTAGATAACTTCCTTTCTTTCAAGTGCACAATTTCAATTTGACTTGAGTCAA
CTTTTGTTTTGGAACAAATTAAGTAAGGGAGCTGCCCAATCCTGTCTGATATTTCTTGAG
GCTGCCCTCTATCATTTTATCTTTCCCATGGGCAGAGATGTTGTAAGTGGGATTCTTAAT
ATCACCATTCTTGGGACTGGTATACATAAGGCAGCCGTGAAACTGGAAAGTCATTTTGAT
GACTGATGTGATACATCCAGAGGTAAATGCATTTAAACATATTAAGTATTTGCCAAAG
ATACAATTTTCTTGCTGACATAAAAATCACACAAACAAGTCCCCCCCCAAACCACAACGT
CTCTCAAATAGCTTAAAAAATGAAAAACATTTTAGGATTTTCAAGTTTTCTAGATTTT
AAAAAGATGTTCAAGCTATTAGAGGGAATGGTAA

Sequence 1749

TABLE 1
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GCCCNTCCCGACCCTCCAGCTCATGGTGTCTGGGGCCTGCGGCTAGACTCTTGGAACATT
CTGGAACCTCTCTCCTTTCTGGCTGGGGCTCTGACCACAACTCCCCTCCAGGCTGCCCC
TGGGACATGGTGGTGATGTGGGTGCAGGAGCCAGTGTCTGTTGTCGGGACTCGCAAGTGC
CCTCATCACAGCCACCCCCACCACGAGTGTCTCCCCAGTGCAGACTCAAGTTATGCTTGA
AATGAAAAAGTCTATCTGGTAGTGGGTAAACGTAGACCTGGCACTGTTCCACGCGGGCGC
CCCAAGCCTGCCACTCCTGTGTCCCTGCCTCCCTGGGCTCCCGAGATAGGCACCACTGTA
TCCTCCAGCTCCTTCCTTCCTTCCCCAGGAACACGGAGGCCACCGAGGGGGCTGGGCCT
ATCAGGAGGACACAGGCTGCAGCCTGGCACCCACCCCTCCATCTTACCCACATGGAAG
ACTTGTCTTCAAC

Sequence 1750

GCGTCCGGATTCTAAAAAAAAAAAAAAAAAAAAAAAAAATTAATTGGGGTGCCTTTTTG
TTATAGTTTCTATTTTCTGTTTTGTAGGACAAGCTGCATTTTCTGTAAATATAGGTCTGG
ACTAAAGGATACATAAAGAATGCACAAAATGTCAACATCAGCAGAGATGCCAGATCTAT
TTATCTCTAAGTATATTTGAAGTGATTGCTGNTTATATGTTGTCATTTTAAATTGTGTG
TCAGTAAAGCTACCTGTAAATTTAGTCCAAAAAATAAAGCTCTCAGGGAGACATGA
ATAAATCAATGAACATTAGAAAATAAAATATAGATGCTTACCATTAACTACCACTCT
TAATATCCTTAAATTATGTGATATATAAAGAGGACTGTTACTTTTTTACTTTCTTTTTT
TTTTTTTGGCTTTGCTTATTTATTTGGAGT

Sequence 1751

GGGCATGCTCATAGGCACAGCTGTTGGTCAGTATGCCAATAACATCACACTTTGGATCTT
TGCAGTCACTGCAGGCATGTTCCCTCTATGTAGCCTTGGTGGATATGCTTCCAGAAATGTT
GCATGGTGATGGTGACAATGAAGAACATGGCTTTTGTCTGTGGGGCAATTCATCCTTCA
GAATTTAGGATTGCTCTTTGGATTTGCCATTATGCTGGTGATTGCCCTCTATGAAGATAA
AATTGTGTTTGACATCCAGTTTTGACCTTTCCAGTAATCACTGTTGATTACGAGAATGT
TACCATGCAGCTTTGCATCTGTTCTTGTACTGTATGCACATTGCTCAAAGGAAAGTCAG
TGGCTTGCCTACTTACAAGTTTCATAGATTTGAGCCTAACCACAAGAGGCTGGTGCTTA
GTACTGTTTTCCCTGCACGTAGGGGTCTTTAAAAATATAAAGCTTGTGATAAAGAGAGG
A

Sequence 1752

CTGGTTCAGCAGCCGCCACCCACCTCTGAGTCTGACCTGGAACCTGCCACAGATGGGGC
AGCCTCCGAGACCACTACCCTCAGCCCAGAGGCCACCACCTTTAATGACACCAGAATCCC
TGATGCAGCTGGTGGCACGGCCGGCGTGGGTACCATGCTTCTGTCTTTGGGATCATCAC
GGTGATAGGCCTGGCTGTGGCCTTGGTTTTGTACATCAGGAAGAAGAAGAGGCTGGAGAA
GCTACGCCACCAGCTCATGCCATGTACAACTTCGACCCACGGAGGAACAAGATGAGTT
GGAGCAGGAGCTGCTGGAGCATGGGCGGGACGCCGCTCTGTACAGGCTGCTACTTCTGT
GCAGGCCATGCAGGGCAAGACTACTCTGCCCTCCAGGGCCCACTCCAGAGACCCAGCCG
GCTTGGTGTTTACCCGATGTGGCCAATGCCATCCATGTGTGAGTGGCCTGGGACAAGC

Sequence 1753

GTCGCCCCGCGTCCGGTGCTCTCATGTCTCATCTCAGAGTTCCAGCTTATCAGAGGCATGTA
GCAGGGAGGCTTATCCAGCCATAACTGGGCTCTACCTCCAGCCTCCAGAAGTAATCCCC
AACCTGCATATCCTTGGGCAACCCGAAGAATGAAAGAAGAAGCTATAAAACCCCTTTGA
AAGCTTTCATGAAGCAGAGGAGGATGGGTCTGAACGACTTTATTGAGAAGATTGCCAATA
ACTCCTATGCATGCAAACACCTGAAGTTCAGTCCATCTTGAAGATCTCCCAACCTCAGG
AGCCTGAGCTTATGAATGCCAACCCTTCTCCTCCACCAAGTCCTTCTCAGCAAATCAACC
TTGGCCCGTCGTCCAATCCTCATGCTAAACCATCTGACTTTCACCTTCTTGAAAGTGATCG
GAAAGGGCAGTTTTTGAAAGGTTCTTCTAGCAAGACACAAGGCA

Sequence 1754

TCGCCCCGCGTCCGGACTGATCATAAACCATGCTGGTATTGCACCTTCTGGAACATG
CTTGAGAAAACCCCAAGATCACTTCTCCTTGGCTTCTTATTTTCTTGAGGCAGGTGCG
ACGTTCTACCTGCCAAGACGTGTGATATCAGCTTCTCAGATCCAGACGACCTCCTCAAC
TTCAAGCTGGTCATCTTGTCTGATGAGGGCTTCTACAAGAGTGGGAAGTTTGTGTTTCA

TABLE 1

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TTTTAAGGTGGGCCAGGGTTACCCGCATGATCCCCCAAGGTGAAGTGTGAGACAATGGT
CTATACCCCCAACATTGACCTNGNNGGGCAACCGTCTNGCCTCAACATCCTTCAGGAGAGG
ACTGGAAAGCCAGTCCTTACNATANACTCCATAAATTTTATTGGGCCTTGCNNGGTATTCT
TTTTTTNTTTGNGAGCNCCAAACCCCNNGANGGACCCCCACTTGGAACCNAAAGGGAGGGC
NCGCAAGAAGGGTTCCTTGGCAAGAAACAAACCCGG

Sequence 1755

TCCGGCCCCGCCACCCGCCGCCAGCTACCATGGATGATGATATCGCCGCGCTCGTNTGTC
GACAACGGCTCCGGCATGTGCANGGCCGGCTACGCGGGCGANGATGCCCCNCGGNCCGTT
TTCCTCATCGTGGGGCGCCCCANGCNCCAGNTGCGTGATGGTGGGCATGGGTGAGAAGG
ATTTCTATGTGGGCGACGAGGNCCAGAGCAATGAGAGGCATNCTNACCCTGNATTACCCC
ATCAGAGCACGGCATNTNTACCAACTGGGACCGACATTGGAGAAAATCTGGCACCACAC
CTTTCTACAATGAGCTGCGTGTGGCTCCCCGAGGAGCACCCCGTGCTGCTTGACCGAGGCC
CCCCTGAACCCCCAANGNCAACCCGNCGAGAANGATNACCCCAGATNCATGTTTTGAGGA
CCCTTTTCAACCCCCCAAGCCCATGGTTACCGTTTGCCT

Sequence 1756

GCGNNGGGGCGGGGCTGGGGTCGGGGGCCAGGGGTGCGCCGGNGGCGGNGGACGGGGCGTN
CGGTGCCTGGGCTCTCTCCGCTCCCTGAGGCGCCGCTGGGGAGTCGAACCCTGATGATGG
GACCTGTGAATTCAGCGGGGTGCCAAGTCGTTTTCTGTGTGGGTTGAGAGACAGGCTGNG
CAGCCCACTGTTGCATAGGACTAACTACTACAAATCATGCTGAGACCGAGCTATTTTTGC
TGCTTAGAGGCTTTGCAGCCTTGAGAGGAATTTGTTGTCAGGAGAATAAAAGGAGGTTG
TCCATNATTGACTTTAAGCAGCAATCAAGTAAACATTGAGCTCTTNAGCTCCGCCTTTC
TTGCTCTGAAAATTGGAACCAANAAGGTTTTGNTGTTATTGTGTGACCCACCTGAAT
TATAAACCAAGATGAACATAACCAAGGTGGTCTNNGGTGTTGTTTTTCAGCAAAAC

Sequence 1757

GGATCTACCANGTGTCTNGAGCAGCAGGAGAGAGCCTTCACGCTGGGGCTAGCAGGACTT
CTCGGCGAGGGAGNNTTTAACTTTGGAGAACTNCTCATGCACCCTGTGCTGGAGTTCCTG
AGGAATACTGACCGGNAGTGGCTGNTTGACACCCTCTATGCCTCAACAGTGGCAACGTT
GAGGCTGGTTCCAGACTCTGAAGACTGCCTGGGGCCAGCAGCCTGATTTTAGCANCTAAT
GAAAGCCCAGCCTTCTTGAGGAAACATTTAGTTTGTGTTGCTCATTGGNAGATGAC
TTTTACACCGACCCCTGGCCNATTCACAAGACANACTTNACTTTTTTGAAGGAAAAATTG
CCAAAAAGTTGGCCTAAAAAATCNACAGGTTGAAATGGAAGGGTGNGAAGNCTTTTCT
GGGGTGATTGGAANGGGCACCCCTTTTTCGGNTNGGGGGCCTGGGT

Sequence 1758

GAGCCGGCTGGCTCGAGTGGCCTTCGTGCTCCCTTGGCGCCCTGGGAGAGTCGCTGACGG
GTGGACTGACGGACCGCCTGAGGACGGCCGGCCAGGGCGGTGAAAGCGCCAGCCCTATGG
CGCGGGTCGCAGTGAGGCGGAAGGCCGAGGACGGCCGGCGGGCGCCCGCCCGGGCGAT
GCGGGCCCCGCCCGTCGCCTNAGGTGCCATTTGATTGTACTTTAGTGGCACCAGTGTAC
TCTGAGTGGAGGTCACTGCATTTGGTGATTGAGAATGATCAAGGCCATACCAGTGTGCTG
CACAGCTATCAAAGAGCGTTNGACGAGAGGTGGCAAATGCTGTAAGTCCGGCCTCTTGG
GCAGGTGTTAAGTACCCCTTCAGTGGCTGGTAGTGAGAATTTGTTAAAAACTGACAAAAG
AAGTA

Sequence 1759

GTCGACCACGCGTCCGGTCTCGGCGCCCCGCTGCCCTCTACCGCCCCACGCAGGATCCCC
GCCTGGTCACCGGGCAGTGTGATGCTTCCCGACTGCCGCGGGACAGCGAGGCACACACA
GGGCTTGGGCGCGCCGGAGGCCACACGCGCTGGCTGAGTTGCTCCTGGTCTCCCGCCTC
TCCCAGGCGACCCGAGGTAGCATTTCCAGGAGGCACGGGCCCCCCCCAGGGGATGGGC
ACAGCCACGCCAGATGGACGAGAAGACCAAAGAAAGCAGAGGAAATGGCCCTGAGCCTGAC
CCGAGCAGTGGCGGGCGGGGATGAACAGGTGGCAATGAAGTGTGCCATCTGGCTGGCAGA
GCAACGGGTGCCCTGAGTGTGCAACTGAAGCCTTGAGGTCTCCCCAACGCAGGACATCA
GATTCCTCATGGTGCAAAATGGCCATTCGAAGCTTCCATCCAGCCATCACATCACAGGAG
GAAGGGAAGA

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Sequence 1760

CCGATGTCTACAAGCTCGTCAAAGACTAGGGTGCCCTCTGCGCCTCCTTAAGGATGCAGG
GTGAGCATCTCCTCTCCACACCTGCCTGGCACCCCTGGGGGGGTCCAGGATTGAGGATTC
ATCTACCTGCCAGGCCTCAGGCCAGGACCCAGGAGGCCTCCCCACCTACCCACGACAC
ACACTCCCTGCCACTGTTCTGCGCTTAATTGTGGGAGAAGAGAGGAGAGGAGGGCTCAG
CGGTGGGGCAGCCTGTCCGGGGCGCTGACCCACCATCACCTGCTCTGCCAGCCTCGCG
TGACCTCAGAGAGGTGGGGATAGGGGACACCTTCAGCCTCCAGCATGTGTGGCCACTTGT
ACCCCCACCCACCCTTGGGGGAGCATGATGGGCAGGTTGAGGGGCAGGATGGAGACCAAG
GGGAANTCAGTGAGCAGNAGGCCCTGGGGAAAGTGCCGGTCGGGGTTGGAATTGAGGGAC
AGAGGGGCCCAACACTTTCTTGCCCCCTTTG

Sequence 1761

CCGCCAGGCCACCATCACACCGCCTCTGGCCGNCACCCCATCTTNCACCTGTGCCCT
CACCACCACACTACACAGCACACCAGCCGCTGNAGGGCTCCCATGGGCTGAGTGGGGAAG
CAGCTTTNCCCTGGCCTCAGTTCCCAAGCTAACTGCCACGTCCACCCACGCATACACACA
TGCCCTCCTGGACAAGGCTAACATNCCACTTAGCCAGCACCCCTGCACCTGCTGACGTCCC
CACNTCCCTTGTTGGTGGGACATTGCTTCTCTGGGGCTTTTTGGAATTGGGGGGCGCC
CTTCTCTGCTCCTTTCACTGGTTAGNCTCTGGCTACCNATAAGCANGAGGOCNTGGGAAG
GGGTTTCTCCCTGGGCCCTTAAAAAAGNGGGCCCCAAAGC

Sequence 1762

AGTCGACCCCGCGTCCGGCAAGCGGGACCGGTAGGGGCCGGAGCATGCGGCGGGCGGCGCT
CGGACTGTCCCATCCGCCCGTATTGAGGCGCTGGGAGCGGCGGGGCGACAGGAAAGCGA
TGGTGAAAGCGGGGGCCGTGAGGGGGGCAGGNGCCGGGAGCCGGACCCGAGTAGCGGCAG
CAGCGGCGCCGCTCCAGAGTTCAGACCCAGGAAGCGGCCGGGAGGGCAGGAGCGAATC
GGGCCGCGCCGCCATGGAGCTGAGAGTCGGGAACAGGTACCGGCTGGGCCGGAAGATCG
GCAGCGGCTCCTTCGGAGACATCTATCTCGGTACCGGACATTGCTGCAGGAGAAGAGGTT
GCCA

Sequence 1763

CGCGTCCGGGGTGATTTGAGCTCATCTTGTTGAGCAAGGGGAGTGAAACCACAGAACTG
TAAATTGAACGTAAATAACTTTGAAAAACAGTTTTGACACTAGAACAAGTCTGCTTCTC
TTTTCTCTTCTCTCCCAACCTGTTAACCTAGTGCTAGATAGTCAGCTGCTGTTGCAGGT
AGAAAAGCTCACCATGCCACATTTGTTCACTTCTGTTCAACCTGTTTTGACCTCCAGGC
ATCTGAACAGGATGACATCATCTTATTATCTTACTTTACACATACGTGTATGTACACA
CACACACACAATAACAAGACATTTTTCTGTTTTAGAAAATATAGCCCTTGTTTGGATTAC
TGCTGTCTGAGCACTAGAAATTTCTAATGGAAAGAGGCCTCTGAATGGCTAAGGGAACAT
CTGGAAAGGAAGGAAAATGAGCCTNAAGGTTTTTGGTGCTTGGTTTTTGGTTCTTTTTCT
TTCNTGGTTCCTTTTTGGTTT

Sequence 1764

AGTCGACCCCGCGTCCGCGGACGCGTGGGCGGACGCGTGGGGGCCCTCCGGGAAGATGGC
GGCCGTGCAGGCGGCGGAGGTGAAAGTGATGGCAGCGAGCCGAACTGAGCAAGAAGTG
GTGGTAATCATTAGTTCAGGGTGCTCTGCCATGTTGACGCAAGCTGCTGTAAGGCTTGT
TAGGGGGTCCCTGCGCAAAACCTCCTGGGCAGAGTGGGGTCACAGGGAAGTCCGACTGGG
TCAACTTGCTCCTTTACAGCGCCTCACAAGGACAAGTCATTTTCTGATCAAAGAAGTGA
GCTGAAGAGACGCTGAAAGCTGAGAAGAAAGTAGCAGAGAAGGAGGCCAAACAGAAAGA
GCTCAGTGAGAAACAGCTAAGCCAAGCCACTGCTGCTGCCACCAACCACACCACTGATAA
TGGTGTGGGTCTGAGGAAGAGAGCCGTGGACCCAAATCAATACTACAAAATCCCGCAGT
CAAGCAATTCATCAGCTGAAGGTCAATGGGGAA

Sequence 1765

TCACCCCGCGTCCGACTTGAATCCCGTCAGCTTAAACTTGTGTAAGGGAATCCTGACTT
TAAAAATGTGAGGGTATTTGGATCTGTGTTGAAAGTCGTATATTTTATCTGTGCGGTGC
TGAGTGCAAGGCCACAGCTCCTAAATAGAGGTTCCCTATATGCGCGTATGACATGGTGAA
TAAACAACACTCTCTCCAATCAGGACATCCGAGCGTTATGGACCGTGGTAGGTGGTCTG

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TCTGTGTGCTTGTGAAAGTGTCAGGCGTGTGCACAGCCAGTGCGCCCACTTCCGGGCTC
CTTGCTCCCTGCTGTACTGAAGTTTTGGATTTTGCATCCAATCCTGTGTGCCTGCCCTTC
T

Sequence 1766

GTCGACCACGCGTCCGGCTCCCGAGCCTGGAGAGCTCGGACTGCGAGTCCCTGGACAGCA
GCAACAGTGGCTTCGGGCGCGGAGGAAGACACGGCTTACCTGGATGGGGTGTGCTTGGCCG
ACTTCGAGCTGCTCAGTGACCCTGAGGATGAACACTTGTGTGCCAACCTGATGCAGCTGC
TGCAGGAGAGCCTGGCCAGGCGCGGCTGGGCTCTCGACGCCCTGCGCGCCTGCTGATGC
CTAGCCAGTTGGTAAGCCAGGTGGGCAAAGAACTACTGCGCCTGGCCTACAGCGAGCCGT
GCGGCCTGCGGGGGGCGCTGCTGGACGTCTGCGTGGAGCAGGGCAAGAGCTGCCACAGCG
TGGGCCAGCTGGCACTCGACCCAGCCTGGTTGCCACCTTCCAGCTGACCCTCGTGCTG
CGCCTGGACTCAGACTCTGGCCCAAGAT

Sequence 1767

CCGGAAGAGTGCTTTATTGTGAAATTATTTAAACTGTCTTTAAAAGAAAAAGAGGAAA
CGATGAACAAAACTAATCTAATTGCCAAGTTAGAATTCATNATTTAATTTACCTCCTAT
GCAATGATTAATGCTGCAAAATGTATGGTTATGTTACCGTATATTCACAAAAGAAATATT
ATTACAAGGTTTCAGAGGTAGCCAATTGCATTCTTTTGAAATTTACTGTACTGTTTCAA
TGTGTTAAGTGCCCTGTTGTAAAGTAAATTTAAGTCTAGATTCAATTATTTTCTGACA
TATATTTTTCATTATGATATCTACTGTATGCTATTGTGATAGTTTTATGAAATGCTTACA
TTTTAATCAAATATGTAAATTTCAGAAGCTCTTTTTTCTACCCACCAGTACCTTAATCA
TTTGGTTTATCACATTGGATTCAAATTCAGGTTCTTTTTTGATAAAGAGGAAATTTGTT
T

Sequence 1768

CCGGTGGGATAGTAAAAGAGAAGACGCGGAGAAGAGGAGAGGACCTACAAGAACGGAGGA
CAGGGGCGCACGATGGTCCCGGGGGGAGCGGAACAAAGGNACGCAAAACGGAAAAGCGT
GTGTAGGGGAGCGGAAAAGGAAGGTCACCACCTGTGGCCTGCGACCGAAATGGCGAAAAG
TCTTTTGAAGACAGCCTCTCTGTCTGGAAGGACAAAAATNTGCTACATCAAACAGGATTG
GTCACTTTTATAGTACATCCCATGGTATGTTTATGNAGGGAAGGAAGTGNAAAANNAACA
CCTTCAGCAGTTTTCTGGNTGGNATTCATTGNACCTNTNAGNAAGGGAAGNACAANTG
GGGCATTTGGGNCATTTCTTTACNTCTTGAACCAATCCCAAGTTAGGAATGGAATGCC
CTTTTTTTCAGGTTGTTAATTGNATGCTACAAACTCTTGGNAAAAAAGTTAATTTGGAAT
TTGGGAAAAAATTTGGGAACAANAGGGGGGAAAAAGGCCTCCATTTGTNCCCGGTGGGGG
GCCAAAAAATACCTTTTCTTC

Sequence 1769

GCGTCCGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGATTG
TGTACAAATTGAAATGTCTGTACTGATCCTCAACCAATAAAATCTCAGTTATGAAAAAA
AAAAAAAAGG

Sequence 1770

GTCGCCCCTCAGCCGCTTCCCCTCGCCATGGAGGCGAGGCCGCCGCCGCCGCCGGGGC
TCGGAGCCGCGGGCCGGCGGCGGCCCTGAGGGCTAGTGGCGGCCGAAACGCCGCCGCG
GAGCCGAGGCGGAGCCGCTGTCTCGTCCCAGCGTCCCGCCCAACGCCCGACTCTGTG
ACACAATAAAAAAACAAGGTATTTATGGAATCCACTGAGTGGTAAATGGATGATGC
AGTTCAAATAACTAAGATAAGCATGGATTCTGGTTCATTCTTGTCTGCTCGGCAGTGG
TCTGATATGTGTGAGTCCAACAATGCTACCACAGTTGCACCTTCTGTAGGAATTACAAG
ATTAATTAACATCAACGGCAGAACCAGTTAAAGAAGAGGCCAAAACCTCAAATCCAAC
TTCTTCACTAACTTCTTTCTGTGGCACCAACATTGAGC

Sequence 1771

GCGTCCGGGGCCACATGGCCGCCGCCGCCGCTTGGAGCTGAAGTGCCGCCGCCGCCGGGCA
GCCACGGGGAATCCGCCCGCATCGCCGCCCTCGCCGGCCGGCGGCGGCGTGGGGCCAGAG
CGCCGGAGGCCAGGGCTGGGGCGGCACCGCGCAGCGGCCACGGGGTCCCGTTAGAGCAGC
GCCCGGCGGCTATGCCGAGAGCCCGGAGCGGCCGGAGGAGCAGAGGGGCCGNCGGGAGGG

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AGGAAACCTTTCTGCGAGTACGAGCCAACCGGCAGACCCGACTGAATGCTCGGATTGGGA
AAATGAAACGGAGGAAGCAAGATGAAGGGCANAGGGAAGGCTCCTGCATGGCTGAGGATG
ATGCTGTGGACATCGAGCATGAGAACAACAACCGCTTTGAGGAGTATGAGTGGTGTGGAC
AGAAGCGGATACGGGCCACCACTCTCCTGGAAGGTGGCTTCCGAGGCTCTGGCT

Sequence 1772

TNGATGTGTATATGGACTGTTNTGAAGGGTTTTTTCTTTATAGCCCANTTAAGTTNTGT
TTGGCTCGGTGCATTTTTCATTTATTTAATTAGTAATTTAAGTAACNGTGTGNGTAAA
ATCATTGTGAAGTTTCAAGATTCATTATGGGANGAGTTGATGGTNCANTNANGCATGATG
GTTTAACAAATTTTAACACCAAAAATGTTAAATCCTGCATAAATCAACTGTANATAATA
AATANGGTGTTTTCNTGTATATGATAGNAATGCAATTAGAAGTACCTNTAGTAAANTCTT
TTGGAATCACCAATNCTTTTTGGCTTGAAAATTGGGAAAGAATTTCTGTTTATAATNCC
TTTNNAATTAACCTTGNNGGGGGGAGGGGGGAAAATAAAAAATTGCAGGAAAAACCTGC
ATGAGNCACCTTAANAACCTTTAAAAGTAAGGGGGGCTTNCCAATCTTTTANTCCCNNGA
AAACCCTGGTTGCCTNTTTTTGCA

Sequence 1773

CGTCCGTTTAAAGGCTCTGACTCTTGATCTTGAAAGCCGGACGCGGCACTGGCACTCGGC
TTCAGTTTCCACTGTGACAGATGGAGGTCTCCTTTCGCCCCAGCCCAGGTGGCCAAGCCC
ATCCTGGCCTCAGAACATGCTGAGCACATTTGTAGGGTGGCACCTTTTATCCAAGTTA
CTAGCTACACATCAGTGTTTAAAGAGAAAAAGTGACCTTTCATTTTTTTTTCTTGAA
ACTTGAGGAAACAAGATACATACTACTGATTTTTTTTTTTCTTAAACTAAATGCATGA
CTGCAGAGCGGTAGAGGTGTATTTTTTCACTGTGGGGCAAAGTATTTGTGCTGCTTT
TTGGAGATGGACTGGAACGTCTGGTTTCTGTCCCCGGGCCCGGCAGCTACCGTCTATTTT
CTGTAGAAGGTGCCACAGTGAGACCTGGAG

Sequence 1774

CCCCGCTCCGCTTCCGGTTGCTAACGGTTCCTAAACAGCCCCCGAAAACGCTACGTGAG
CTGGGCCCTGGGCCAGAGGCAGAAAACGGACGGAAGAAAAGGTCTGGCCGGAGATGGGTC
TCACTCTGTCACCCAGACTGGAGTGCAGTGAGTGGTGCGATCATAGCTTACTGCAGCCTG
AAACTCCTGGGCTCAAGTGATCTTCTCGCCTCAGCCTCCTGAGTAGCTGGAGCTACAGGT
GTGAGCTACCCAGCATGGCTCATTTGAGATTTCTGAGTAGAGAAGTAACATGATTAAAC

Sequence 1775

GGAACCTCCCCTAGATTTTCAAGATGTATGGAAACGCCTAGATGCCCTGGCAGAAGTTT
GCTGCAGGGGGCGGGGCTCTCATGAAGAACCTCTGCTAAGGCAGTGTGGAAGGGAAATGTG
GGGTGGAGCCCCCAAACAGAGTCCTTAGTGGGGTGCTGCCTAGTGGAGCTGTGAGAAGA
GGGCCATCATCCTCCAGACCCAGAATGGTAGATCCACTGACAGCTTGAAGTGTGCACCT
GGAAGAGCCGCAGACACTCAATGCCAGCCCGTGAAAGCAGCCAGAAGGGAGGCTGTACCG
TGCAAAACACAGGGGCAGAGCTGCCAAGACTGTGGGAACCCACCTCATGCTTCAGTGT
AACCTGGATGTGAGACCTGGAGTCAAAGGAGATCATTCTGGAGCTTTAAAGTTTGACTGC
CATGCAGGATTTTCGACTTGCATGGGCCCTGTAACCCCTTTGTTTGGCCAATTTCTCCC
GTTTGGAACGGCTGTAATTACCCAATACGTGTATCCCATCGTATCTAGGAAGTAAGTAG
CTTGCTTTTGTGTTTACAGACTCATAGGTGGAANGGACTTGCCTTGTCTCAAATGAGACT
TTTGGACTGTGGACTTTT

Sequence 1776

GCGTCCGGAACCTTTATAAGAATTTATGCCGTTNTACATGAACCGTTAAGTTTTGACTTG
ACGTTTCTGTTTATTANGCTAAATTGTTCTCAGGTGTGTGNTATATATATACATATAT
ATATATATATATATATATATATATACACATATATACGTATATATACATATATATGTAT
ATGGAGTCTCGCTCTGTTGCCAGGCTGGAGTGCAGTGGCACGATCCCAGCTCACTGCAA
CCTCCGCTCCCGGGTTCGGGCGATTCTTCTGCCTCAGCCTCCCTGGTAGCTGGGGCTGC
AGCCATGTGCCACCAAGCCCAGCTAATTTGTATTTTGGTGGGAGACAGGGTTTCACCAT
GTTGGTGAGGCTGGTCTGGAAGTGAAGCCACACGCCTGTCCCAGTATATTGTTAACAAGTTTA
TTTTGGGTGAAAAATTCTTTAATGGGAAGA

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Sequence 1777

CCACGCGTCCGGCGCCCCCTCCCGGCCGCCATGTTGGCTGGTGTGTGGGTGTCAAACCTGA
GCCAGACGCGGCGGTGGCGGCGGCTCCGCGGGCTACGGTCGCTCCCGCCTCTCGAGCGCT
GCCGGTGGCCGCGAGCGGCGCACCACGCCGGCCCGGAGGAGCAGAGTGCTAAGTGCTGGG
TGCTCACTGGTGATGAGGCAGATGAAGTTACCAAACCTTGTGGACAGGAGCCTCATATCA
GAGACGTGGACCTCACTGTAGCCTGGTCATGGCTTCCAGCTTTTGAATCTGAGGCTCCA
AAGGAGGAAATGACCATTACGGGATCTTACTCCAGCTTGATTACGGAGACTGAACCTTCA
TAGGGTGCGCACTTACCAAGGACAGGAAGGTTTCTCTGTTTGAAGGGCTTTAACTTATA
ACAAAGAAAATAA

Sequence 1778

CGCGTCCGAGACAGTTCATACTGGAGACAAACCCTACAAATGTAATGAATGTGGCAAAAC
CTTTAAACGGAACCTCAAGCCTCACTGCACATCATATAATCCATGCAGGAAAGAAACCATA
TACATGTGATGTATGTGGCAAGGTCTTTATCAGAATTCACAACTTGTAAAGGCACCAGAT
AATTCATACTGGAGAGACACCTTACAAATGTAATGAATGTGGCAAGGTCTTCTTTCAACG
TTCACGTCTTGCAGGGCACCGGAGAATTCATACTGGAGAGAAACCCTACAAATGTAATGA
ATGTGGCAAGGTCTTCAGTCAACATTCACATCTTGCAGTGCATCAGAGAGTTCATACTGG
AGAGAAACCTTACAAATGTAATGAATGTGGCAAGCCTTTAATTG

Sequence 1779

NCCCCGCGTCCGCTGTTGGAGCAGTAGACTTCTCACATCTTTTTGTCACTTCATCGTTTG
ACTGGACAGTAAAGCTTTGGACAATAAGAATAACAAGCCTTTGTATTCATTTGAAGATA
ATGCAGACTATGTTTATGATGTTATGTGGTCACCTACCCACCCAGCCCTGTTTGCCTGTG
TGGATGGCATGGGGAGATTGGATTTGTGGAATCTCAATAATGACACAGAGGTACCAACTG
CCAGCATTTCTGTGGAGGGTAATCCTGCTCTTAATCGTGTGAGATGGACCCATTCTGGCA
GAGAGATTGCTGTGGGTGATTCTGAAGGACAGATTGTTATATACCGATGTGGGAGAGATT
GCTGTTCCCCGCAATGATGAATGGGCACGGTTTGGCCGAACACTTGCAGAAATTAATGCA
AACCAGAGCTGATGCAGAGGAGGAAGCAGCTACCCGAATCCTGCTTAGTTCTGAAAAGGG
GAGTGTAAGTGTGATTGGGAAAGGGTC

Sequence 1780

AGTAGGAACCAAGAAAACCTTCTTTTGCCAACTTTACAGGATATCTGGTAAACTATTACAT
NGTCAGGCCAAACATGCTCCTTGCATTTTTGTGGCTGAATNTGGGTACAGAGTGGTTCT
ATACGATGGTAATAACCAACTTGNAAATCAAAGGAAGNATTCCAACAGAAACAGATAGGAN
AANGTCTTGAGAAGATATATNAAGGAATNTGTCACTTGTACACNATGCCGATCAACCGG
GACACAAATTCCTGCAAGAAGGGACACACCGGACTCTATTTTCTACAAGNGCAGGAAA
CCTTGTTCACTTAAGCATGGTTTCTGNTTGCCAGGTATTCAAAAAA

Sequence 1781

ACCCACGCGTCCGGCTGCGTTGGGCTTGCCTGCGGCTCGCTAAGACTATGGCGTCCGGGC
CTCATTCGACAGCTACTGCTGCCGACCGNCTCATCGGCCGNNCAAGCGCGGGCGGCT
CCAGCTCCGGGACGACGACCACGACNACNACCACGACGGGAGGGATC

Sequence 1782

CCGCGTNCGTTTGTGTTGAATGGNTTGTATACTTCTTTACACAACTATCCATTACTTAA
GGAATCTGCTCTTATTCTTCTACAACTGNTCNGGAACAAANTGATATCAGAAATTNGAT
AAAAGAACTTCGAAATGNTTGAAGGAGTNGAGGAAGNTCATTGAATTNCATGTTTGGCAA
CTTNGCTGGAAGCAGAATCATTGGCACTG

Sequence 1783

GTCGACCCCGCGTCCGGGCCCCGTCTACAAGGNTTGTAGATAAAATAGAAACATACCTTCC
TTGAAAATGCAGAATAAATTTTTAAAGGCAGGAAGGAAGTGTGTAACCATGTGTCAAC
AAGCTTTACTGTCAAAGCAGGCTTTTGGTATGGGAAGAAAAATACTTATAAATACTNGTN
TTAATATTTGCTTTATTAATAACATTTAAATACAGCATTTTAAATCTCTAAGCTCAA
CTTGAAGATATAAGAACAGTAAATTTGATAAAAATGAGAAATTACATTCCCATTTCTTTA
ACAATTTGTAAATTCCAATTATCCTGAACATTTAACACCATTTACATATTTTATTAATCA
CATTTTCTAAACATTTGATAAGAGATTTAATATTTTGTATCCAACCTACCA

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Sequence 1784

CGCTCCGCGGACGCGTGGGTGTGGAGCCTGTTACCTCCGCATTTGACACGAGTCTGCTGT
GAACCCCACAACCTCCTCCCCACCTCCCATCTCTCCTTCAGGCCCATCCCTGGCCCAGA
GCAGGAGGGAGGGAGGGACAGATGGCGGTGGGTTTTTGATCTGAATTTGCTGTCTTGAA
CATAAAGAATCTATCTGCTGTTGAAAAAAAAAAAAAAAAAAGGnnnnnnnnnnnnnnnnn
nnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnn
nnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnn
nnnnTCACAAATAAAGCAnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnn
AATGGTATCTTATCAATGTCTNGGATCCCCCGGGTACCCGANGCTCGAATTTAATTTCCT
TTTTTC

Sequence 1785

ACGCGTCCGGCTTCGTTCTCCCGTCCCTCCCCGCGCCTTGCGCGGGGGGTGCTAGCC
AAGTGAGGCGGGAGGCGACTCGGACCTTTCCCTGCATTTGTTTCGGCCAGTGCCGGGGG
CTACCCGCCCTGGGGCCTGGGATCCTTGGGGCCCGTGAGGCCACTCTTAGCGGCCGGGG
CCTACCGCGGCCCGCCGCTGGCCCTCATGAGGCATAGCCTGACCAAGCTGCTGGCAGCCT
CGGGCAGCAACTCCCCAACCCGAGTGAGAGCCCGGAGCCGGCTGCAACTTGTTGCTGC
CCTCTGACCTGACCCGGGCTGCAGCGGGGGAGGAGGAGACGGCGGCGGCNCGGATCTCCC
GGCCGCAAGCAGCAGTTTGCGCAGCAAGGAGAGTTGGAAGCCGGAGGGGGGGAAGCCCG
CGGCGGCGTGCCCGTGCGCGCGCCCTCCCCGAGGAGATGGAGGAGGAGGCGATCGCCAG
CCTTCCGGGGGAAGAGACGGAAGGATATGGACTTTTTTCTGGGCTGGA

Sequence 1786

ACGCGTCCGGCCAGGCAGTGATGGAATCCCGGGGTCNGCAGGAGAGAAGGGTGAACCAGG
TCTACCAGGAAGAGGATTCCCAGGGTTTCCAGGGGCCAAAGGAGACAAAGGTTCAAAGGG
TGAGGTGGGTTTCCCAGGATTAGCCGGGAGCCCAGGAATTCCTGGATCCAAAGGAGAGCA
AGGATTCATGGGTCTCCGGGGCCCCAGGGACAGCCGGGGTTACCGGGATCCCAGGCCA
TGCCACGGAGGGGGCCCAAAGGAGACCGCGGACCTCAGGGCCAGCCTGGCCTGCCAGGACT
TCCGGGACCCATGGGGCCTCCAGGGCTTCTGGGATTGATGGAGTTAAAGGTGACAAAGG
AAATCCAGGCTGGCCAGGAGCACCCGGTGTCCAGGGGCCAAAGGAGACCCTGGATTCCA
GGGCATGCCTGGTATTGGTGGCTCTCCAGGAATCACAGGCTCTAAGGGTGATATGGGGCC
TCCAAGGAGTTCAGGATTTCAAGGTCCAAAGGTCTTCTGGCCTCCAGGGAATTAAG
GTGATCAAGGCGATCAAAGG

Sequence 1787

AAGCTATTGTCACACCTTTGAAACCAGTTGACAACACTTACTACAAAGAGGCAGAAAAAG
AAAATCTTGTGGAACAAGTCCATTCCGTCAAATGNTNGTTCTTCCCTGGAAGTTGAGGCA
GNCATATCAAGAAAACTCCANCCCAGCCTCAGAGANAGATCTCTTAANGCTTTCTGCTC
AGAAGGATTTTGGAAACAGAANAGAAAAGCATCATGGTAANAAATGAAAGCCAAGAGATGT
GCCCCTCCTGTTAATTCATTGATTGAAAATTCATACCCCTTCTAAGAAAAAATGAAAA
GTTTTNTAAACAACAAAAAAGAAAGCCNNNAGGCAAGGAAAGGGCANGTGCTTCATNAA
GNATACCTGNTGNAAAAANAGGAAATGGCATCTTCNCCAAGAAGAAAAAGCCCAANGGGT
TTGTACCATACCTGGTGCNCTTTGTATGCNCACCCTGCCAAAGGCATAAAGGTTTTCTAA
AAAAAGTTACCTTGAGNGAAGCCAANGAAGCCTGGGAGAAAANAGTANTGNAAAAAATGC
AAGCNAAAGAAGGNTGGGTGGGAAG

Sequence 1788

CCCCGCGTCCGAGCAAACATAAGAAACCTGAGTCATTTTGTCAATTTAGAGTATTCTGATA
AAATCTCTTGAAAATACTGAAATCAAAAGGTTAATGATTTTTTTGTTCAATCTGATTTGTC
ATTTTATTATCTGTCTAGCAGAAAAATCAAATGGGTAAATTAGCACTTTAGACAGCCAAC
ATAGTGAAACCCTCATCTCTACTAAAAGTTGGCAATTAATCTGAATTTACAGATACAGA
TAACAGTTTATCAGAAATCATATTTTTCTGAAGAAAAATTTAAAATTAGGAGTTGTGGGC
CTGGTGCGGTGGCTTACGCCTGTAATCCAGCACTTTGGGAGGCTGAGGTGAGCAGATCA
CTTGAGGTGAGGAGTTGAGACCATAGCCAACATAGTGAAACCCTCATCTCTACTAA
AAGTACAAAAATTAGCCAGGTGTGGTGGCCGTGTGCCTGTAGTCCCAGCTACTCGGGAGG

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CTGAGGCGGGAGAATCGTTTGGAACCCG

Sequence 1789

GACCACGCGTCCGGTCGGCGTCTGGGCCTCGTCCCCTTCTCTCTGTCTCCCTTGCCTCCC
CCATCACGTCCCCTGACACCGACACCCATTGCTCCCACAGTCTCCCCAGNCTCCACTTT
GGTCCCCAGCGCTGTCTGCCCCGAGGATTTGCCTGAAGGCTGCCCCCAACTCTGCACCCGC
CCCCCGAGGGCCACCGAGGACCATGACTAAGACAGATCCTGCCCCGATGGCCCCGCCACC
CCGAGGAGAGGAGGAAGAAGAGGAGGAGGAGGATGAACCCGTCCCCGAGGCCCCCAGCCC
CACCCAGGAGCGCCGGCAGAAAGCCTGTTGTGACCCCTCGGCACCTGCCCCCTCCCTAA
GGACTACGCTTTCACCTTCTTCGATCCCAATGACCCGGCGTGCCAGGAGATCCTGTTTGA
CCCTCAGACCACCATCCCCGAGCTGTTTGCCATTGTGCGCCAGTGGGTGCCCAA

Sequence 1790

CGGGGTCTTCTTGCTGTGAGGTGCGGTCCCCAGTGTTACGGAGGGTCCTTGAGGCAAGG
AGTGAAAATTGGGTCTGGGGTTAGTCTGGGGTGGAGGTCTGGGCACGCCGGGTGCGAC
CCCCTNCATCTTCGGNTTGCACACCCCGCTTTCAGCGCGGAGTCCGCGCGGGTAGGG
CNGGCGTCNCGTGCGTGACGTATCCAGCGCGCCTNCGAGGCTNCAGTGGCCTTGACC
TCCCGCGNGTGGGAGGCTGCGCGCGATGCTGCANTTTCGTCCGGGCCGGGGCNGCGGG
CCTGGCTT

Sequence 1791

GGGTTATGAGAAGAACGCTCAGAGCAGAGCACCGAAAGTGGCCACTACCAGCATGAAGAG
CCCAACAATTCAAAGTGGNAGAAGTGAGAAAAACAGAATGCAGCTTCAAGGTTCTGTTT
AAGCAGTTGGCTTGTGGGACTCTGAGAGATGCTGCTGNCCATGACATGCGGGAATTATCA
TGATCAACTACCCAGCTTGGATTTACCCAGTGGCCAAGTACTGTTGTGTGGGAGACGGC
AAGGGTTGGATTTTTCAAAGAGTAAACCAGACCCGTGACCAAGGTGTNAAGTAAAGT
GGAGTCATGCTTCACACGGNONTATCNTGCTGGCAGCCATTCTGGGTCTGGCTGTGGTG
TTAATCTTCATGGGATCC

Sequence 1792

GTGCTGGTTTTNTCTTGACAGATGCTGCTGCTAGGGGTGGTGGGAAGCAGCCGTGGGACGCG
TGGCCGGNAGCGGNGGTGACAGCCTGGGANNNCGGGGGCTTNTCTTCTTGTCTCCTCC
TNTCCTGTCTATTCCCAGNNGGGCGTGGCTGACACTAAAGACTNTGTANNATCAACC
CGAGTGCANNTTCNATGGAAAATGAAGGTTGCACGTTTTCAAAAAATACCTAATGGTGAA
AATGAGACAATGATTTGCTGTATTGNCANCCAAAAAAGCAAAGGGNATTNCCANTCATT
GAAGNTGCAAGCATTCTNCAAGCTGATCTTCNAAATGGGTCTAAACAAAATGTNAAGNTA
AGTTCNTNAGGCNAGCCCTTTCATGGTTTNGAAATGAGNTTTCGNTTTTTATGTGAAAGN
TGGAGGCCNCCNTGTNNGGAAAGAAANGTTTNTTTTNCNCCAGGTTTTNAAAA

Sequence 1793

GTCCGTTTTACAACCTAGTAATAATGTGGATAAATGTATCTACATGACACATGTCAAGAC
CAAAATAACTGTGAATGACACACCTTGCTGTAAATGAACTGTGCTAACCTGACTGTGGG
CTTGAGAACAAAGATGAACTCTAGAACTCTAGCAGCCTAACTGCTGCTTCTCAAATAACT
GTGTGAACAGTGAGATATTACTGTTTGTCTTCTAAAAATCCTACTGTGCCAGTTTCCTTC
ACTACATGCCCTGCATTTTTTATTTAAATATTTAGCTGTAGCGCCATCAGATATGGATGC
CTTCTAACAATTGCTGTTTGTAAAATAAATCAGGATGGTAGAAAGTGATTATATGAAAA
TTGGAACCTGGATGAGACCTTTTCGTTGAATTCTGAAGAGTAATGATGTGAAAATTGATA
CAGGGCAAGAGATGATTCTTTTGGGTTTTCTTCTACTTCATGTCCAGAAGAGTAAGAGGG
GAAAA

Sequence 1794

TNGTTGCCTGCAATACTACACTTTACAAACAATGTTAACTGTGATTCCTTCATTGTTT
TAAGAAGTTAACCTAGGGCCGGGCATGGTGGCTCATACCTGTAATCCTAGCACTCTGGGA
GGCCGAGGCAGGAGGATCCCTTTAGCCCAGGAGTTAAAGACCAGCCTGGGCAACATAGGG
AGACCTGTCTTTTTTTTGGGCAGCGTGGTGGGGGATAAATAAATAAAGGAAAAA
TTAGCCTAGAAATTAATTAATTGAATTCATCTAAAGATGTCTCTGGTGATTTTT
ATATGTTCCGCTATATAATTGATGCTTTATAGTTTTATCATAATCCAACAACCTTCAGTTA

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TATTTAATTATTGGTAANGGAGTTTAAGACTNGAAAGACTAGAGTGCTTTCTAGTCCAAA
TAGAGGGTCANGTGAAACCAGCTTTTTGACATCAAGATTTTCATTTTGAGAAGGGANAAG
CCTGTGGGACTGGGCTTAAA

Sequence 1795

GTCCGGAGAAAAGTCAACTTGCCAGNTCCTCTTCTCCACCAATAGATGCAGCATCCGC
AGAGCCCTATGGCTTCCGTGCCTCAGTGTTATTCGATACAATGCAACACCATCTAGCCTT
GAATAGAGATTTGTCCACACCTGGCCTGGAGAAGGACAGTGGAGGGAAGACACCTGGTGA
CTTTAGCTATGCCTATCAAAAGCCTGAGGAAACAACCAGGTCCCCAGATGAAGAAGATTA
TGACTTGAGTTATGAGAAGACCACCCGGACCTCAGATGTGGGTGGCTATTACTATAGAAA
ATAGAGAGAACCACAAAATCTCCAAGTGACAGTGGCTACTCCTATGAGACCATTGGGGAA
AACTACCAAGACCCCTGAAGGATGGTGACTATTCCTATGAA

Sequence 1796

CCGGCNTAGCGGGGGGAACACGCCGCTGCGCTCTCTTGGGACCCTAGATTTGGGGGAG
GAGGTAACGAGAGGCGGAGAGGGTGGCTCCTCAAATATACACCCCTCCTGCTCCTCGCCA
CCCCACCTTTGATTTCTCTTCCCTCAACCCAGCACTCCAGCCCCACCCAGGGTCAATTT
TTGCCCCCTTCCATCTGAGCAGTGTTACCAGGCCCCAGGGGGACCGGAGGATCGGGGGCC
GGGTGGGGGGTCCCATGGAGTACTCCAGCACACGCAGGGGCTCCTGCAGACAGGGGGG
CCTTCGCCCTGGAAGCCTGGACGCCGAGATAGACTTTCTGAGCAGCACGCTGGCCGAGCT
GAATGGGGGGTCCGGGTCATGCCGTACGGCGACCAGACCGACAGGCATATGAGCC

Sequence 1797

TCCGATTNNGCCNAGGGTTGCAGTTTGTAGACCCCTGATCTAGACCCTTAAGTAGCCTTG
TTTGTGCCTGAAGTTTACAGATGATCCCCAAGTTATTTTATTTTATTTTATTTTATTTT
AGTCTCTCTCTGGAGCCCAGGTTGGAGTACAGTGGCAAGATCTTGGCTCACTGCAACCTC
CACATTCGGGTTCAAGTAATTCTCCCGCCTCAGCTTCTGAGTAGCTGGGATTACAGGC
GTGTGCCACCATGCCAGCTTTTTTGTATTTGTATGTTAGCCATGTTGGCAAGGCTGGCC
TCAACCCCTGACCTCAAGTGATCTGCCACCTCAGCCTCCCAAAGTGCTGGGATTACAGG
AGTGAGCCACCATGCCCGAACCCCAAGTTATGTTTGACTTACAATGTTTGGACTTTATGG
ATGGTGCAAATGTTATATGCATTTCAAGNAGAACTGGGCTTCAAATTTTGAATTTTGA
ATCTTTTATTTT

Sequence 1798

TCCGCTGCCGAAGTCAGTTCCTTGTGGAGCCGGAGCTGGGCGCGGATTGCGCGAGGCACC
GAGGCACTCAGAGGAGGTGAGAGAGCGGCGGCAGACNACAGGGGACCCGGGCGGCGGC
CCAGAGCCGAGCCAAGCGTGCCCGCGTGTGTCCCTGCGTGTCCGCGAGGATGCGTGTTG
CGGGTGTGTGCTGCGTTCACAGGTGTTTCTGCGGCAGGCGCCATGTCAGAACCAGGCTGGG
GATGTCCGTCAGAACCCTGCGGCAGCAAGGCCTGCGCGCCCTCTTCGGCCAGTGAGC
AGCGAGCAGCTGAGCCGCGACTGTGATGCGCTAATGGCGGGCTGCATCCANGAGGCCCG
TGAGCGATGGAACCTTCGACTTTGTCACCGAGACACCACTGGGAGGGTGAACCTTTNCCTT
GGAANCCTTTGCGGGGGCCTTGGCCTGCCAAGCTNTACCTTTTCAACGGGGCCCCGG
CGAG

Sequence 1799

GGCGNAGCTCGNCTTCCTCCNCGCCCAAGTTCCGGCGCCGCTCTTGCGGGAGCGTGCCGC
ATCACCCCGGGGGGCCCTACGCGAGGATCTCCGGGGCCGTTGGCAGCAGCCTG

Sequence 1800

TCACCCCGCGTCCGGGCGGGCGTGCGGGCGGTGGGAGGTAGTGAAGAAGGGTCGGCGGCCT
GGGGTCGGCGCCGGCGCCGGCGGCGGAGGAGCGGTAGGAACCGCAGGGCGCTCGGGGAA
GCAAACNGAGTGTGGAATAACNACCTGACCCCTGCAATCCAGACCACAAGCACCCCTTAT
NAGCGGNGCTTTNAGAATATCATNAAGNGGNTTAAATAAGGAGCAGGTCCACCCCTGC
TGTGGAA

Sequence 1801

GTCGACCCACGCGTCCGGGAGCAGAGTCGACTGGGAGCGACCGAGCGGGCGCGCCGCC
GCCATGAACCCCGAATATGACTACCTGTTTAAGCTGCTTTTGATTGGCGACTCAGGCGTG

TABLE 1

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GGCAAGTCATGCCTGCTCCTGCGGTTTGCTGATGACACGTACACAGAGAGCTACATCAGC
ACCATCGGGGTGGACTTCAAGATCCGAACCATCGAGCTGGATGGCAAACTATCAAACCT
CAGATCTGGGACACAGCGGGCCAGGAACGGTTCGGACCATCACTTCCAGCTACTACCGG
GGGGCTCATGGCATCATCGTGGTGTATGACGTCACTGACCAGGAATCCTACGCCAACGTG
AAAGCAGTGGCTGCAGGAGATTGACCGCTATGCCAGCCGAGAACGTCAATAAAGCTCCTG
GTGGGGCAACAAAGAGCGGACCCCTACCACCAAGAAGGTNNGTGGGACCAACACCACAA
GCCAAGGGAGGTTTGGCAAGACTTCTTTTGGGGCATTC

Sequence 1802

NCCCCGCGTCCGCGGACGCGTGGGCGGAGCTGCTGTGCAGTGGAACGCGCTGGGCGCGG
GCAGCGTCGCTCACGCGGAGCAGAGCTGAGCTGAAGCGGGACCCGGAGCCCGAGCAGCC
GCCGCCATGGCAATCAAATTTCTGGAAGTCATCAAGCCCTTCTGTGTCATCCTGCCGGAA
ATTCAGAAGCCAGAGAGGAAGATTCAAGTTAAGGAGAAAGTGCTGTGGACCGCTATCACC
CTCTTTATCTTCTTAGTGTGCTGCCAGATTCCTGTTTGGGATCATGTCTTCAGATTCA
GCTGACCCTTTCTATTGGATGAGAGTGATTCTAGCCTCTAACAGAGGCACATTGATGGAG
CTAGGGATCTCTCTATTGTCAAGTCTGGCCTTATAATGCAACTCTTGGCTGGCGCCAAG
ATAATTGAAGTTGGTGACACCCCAAAAGACCGAGCTCTTCTCAACGGAGCCCAAAAGTT
ATTTGGCATGATCA

Sequence 1803

CGCGTCCGCGCTTCTGTTACGGCCAGTGCAACTCTTTCTACATCCCCAGGCACATCCGGA
AGGAGGAAGGTTCTTTCACTCCTGCTCCTTCTGCAAGCCCAAGAAATCACTACCATGA
TGGTCACACTCAACTGCCCTGAACTACAGCCACCTACCAAGAAGAAGAGAGTCACACGTG
TGAAGCAGTGTGCTTGCATATCCATCGATTGGATTAAGCCAAATCCAGGTGCACCCAGC
ATGTCCTAGGAATGCAGCCCCAGGAAGTCCAGACCTAAAAACAACCAGATTCTTACTTGG
CTTAAACCTAGAGGCCAGAAGAACCCCCAGCTGCCTCCTGGCAGGAGCCTGCTTGTGCCG
TAGTTCGTGTGCATGAAGTGTGGATGGGTGCCTGTGGGGGTGGTTTTTAGGACACCAGAA
GAAAACACAGTCTCTTGTAGAGAGCACTCCCTATTTTGTAAACATATCTGCTTTAAGGG
GGATGTACCAGAAACCCACCTTACCCC

Sequence 1804

CCCGCGTCCGTAGATTAAATTATGCAAGTTGCAAGAATGTAGTAACTCTGATCAGCTACA
AGGAAAGGAGGAAAGAGTAAATGAAGAAAGTCATCTAACTGAAAGGAATATATAGAACA
TTGTAACACCCCTACAAGTATTCTGATTCTATAGCAGTTAAAGCACTACAAATAGA
TAGCTTTGGTTTAGTTACATGCTTTCAACAAGAGTCTCTTGATGTTTCTCAAATGATACT
TGGAATCTCAGCAACCTGAGTCAAAATGCAATCTGAATTTATAAAGAAAAAGTGC
TACTTGTTCAAATGAGGAAAAAGGTAACCTAAACGAGGTGAGTAATAACTGAAGAGAAAG
AACAGATGGGAGATCACCTATCTTCACTACTGAACCAAACTACCNGTTCACAATATA
CCTGGATTGACAGCATAAAAGAAACC

Sequence 1805

GCGTCCGCGCAGCTGAAAGGGGATTTGGGCCCGGAAGATCCGAGTCCATCCGCGGCGGGGA
GAGGGCAAGCGGGACCGGTAGGGGCCGAGCAGCGGCGGCGCTCGGACTGTCCCATC
CGCCCCGTATTGAGGCGCTGGGAGCGGCGGGGCGACAGGAAAGCGATGGTGAAAGCGGGG
CCGTGAGGGGGGCGGAGCCGGGAGCCGGACCCGCGAGTAGCGGCAGCAGCGGCGCCGCTC
CCAGAGTTCAGACCCAGGAAGCGGCCGGGAGGGCAGGAGCGAATCGGGCCGCGCCGCCA
TGGAGCTGAGAGTCGGGAACAGGTACCCGGCTGGGCCGGAAGATCGGCAGCGGCTC

Sequence 1806

GTCGCCCCGCGTCCGCACAGTTGATTCTGAATTTTAAAGGCTTTCCTAATAGGCTGATCA
CAGAGAATAATCCATTTTGAAGGTATAAACTGCACTGTATGTCTGTCACTTGTAGCTGA
ACTGATTACATTTTGACAAAAGAGAGAAAATACAAAATGAGTTTGCAAATGTAATAA
CTTTTTCTGCATATAGAATAAATGAAAAATATGGGCTATAGTTCTCAAAGGTAGA
TAGTAAATCACTGGCTTTTCCAGCTGTATGTTTTCCACTGTGCGTGTACACACACAC
TGGAATAAATTAGGCTGATTTTGCAGGTCTTTCATTGTTAGAGATTCTGAAGTATTTACT
GTCAATTCATAGGTTTCAGTTTATTTAGGAAATTAGTGTGTTGACAGCTTTTTTAAATTA

TABLE 1

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TTTCACTGAAGCTGAGATTATTAGTGATCAAAGTTAAAATTTCAATATTTAATTTCTCTA
TATATTATTAATATTAATAATGGTTT

Sequence 1807

GTCGACCCCGCGTCCGGTACTACATCCCCTGAAGAAACATGTGCCCAGGTGATTCGTGAA
GCTAAGAGAACAGCACCAAGTATAGTGTATGTTCCCTCATATCCACGTGTGGTGGGAAATA
GTTGGACCGACACTTAAAGCCACATTTACCACATTATTACAGAATATTCCTTCATTTGCT
CCAGTTTTACTACTTGCAACTTCTGACAAACCCCATTCGGCTTTGCCAGAAGAGGTGCAA
GAATTGTTTATCCGTGATTATGGAGAGATTTTTAATGTCCAGTTACCGGATAAAGAAGAA
CGGACAAAATTTTTGAAGATTTAATTCTAAAACAAGCTGCTAAGCCTCCTATATCAAAA
AAGAAAGCAGTTTTGCAGGCTTTGGGAGGTACTCCAGTAGCACCACCACCTG

Sequence 1808

CCCCGCGTCCGGCCTTTAAAGAAGACTTGAATTCCTATGGAACAATAAAGACACAGCAG
AAAACAGGGATTCTCCTGTTTCAGAGGAAATAAAAAATGACCTGTCAACAATTTATCCATT
ATCACCGTGACCTCTGTATCCGAAACATTGTCAAAGAAAGAAGGTGTGGTGCAAAGACTT
CTGCTGGAACCTTTCTGTGGCTGTGACCTGGTGAGCTGGCTAATTGAAGTCGGCCTTGCT
CCGACCGTGGTGAAGCTGTGATATACGGAGACAGGCTGGTACAAGGGGGAGTCATCCAAC
ATATTACCAACGAGTATGAATTCGGGATGAGTACTTGTTTTACAGATTTCTTCAAAAGA
GTCCTGAACAGAGTCCTCCTGCTATTAATGCAAACACTCTCCAACAGGAAAGATATAAAG
AAATTGAGCATTTCATCCCCACCCCTCACATTCCCCTAAGACCTAAATTATGCAGGGGAGAA
CCCTACATGGAATCAT

Sequence 1809

CGCGTCCGCTGGAGTGCTGCTGAGGAGCGANGGGCCCATCTGGGGTCTCTGGAAGTCGGT
GCCCAGGCCTGAAGGATAGCCCCCTTGCGCTTCCCTGGGCTGCGGCCGGCCTTCTCAGA
ACGAAGGGCAGTCCCTCCACCCCGCGGCGCAGGTGACCGCTGCCATGGCTTTTCCCCATC
GGCCGACGCCCCCTGAGCTGCCTGACTTCTCCATGCTGAAGAGGCTGGCTCGAGACCAGC
TCATCTATCTGCTGGAGCAGCTTCTGGAAGGATTTATTCAATTGAGGCAGATCTCA
TGAGCCCTTTGGATCGAATTGCCAATGTCTCCATCCTGAAGCAACACGAAGTAGACAAGC
TATACAAGGTGGAGAACAAGCCAGCCCTCAGCTCCAATGAACAATTGTGCTTCTTGCTCA
GACCCCGCATCAAGAATATGCGATACATTGCCAGTCTTGTCAATGCTGACAAATTGGCTG
GCCGAA

Sequence 1810

CGCGTCCGGTGCATCTGAGGACTGGTGGGAAGGCANGGCACAACGGGATTGACGGGCTGG
TGCCTCACCAGTATATAGTGGTGCAGGATATGGATGATACGTTTTTCAGACACTCTGAGCC
AAAAAGCCGACAGTGAGGCCAGCAGTGGGCCAGTCACGGAAGACAAGTCTCATCCAAGG
ACATGAACCTCCCGACAGACCGTCATCCTGACGGCTATTTAGCCAGGCAACGAAAAAGAG
GAGAGCCACCCCTCCAGTAAGGCGTCTGCGCAGGACCAGTGAT

Sequence 1811

TCAGGAGTCGACCCCGCGTCCGGAAGGCCGATGCTGTGGGGGTGGGCGTGGAGAGAATTC
TTCTGTGGGTCTCTGGTGTGAGTGGTGGCTTGGTGTGGTGTGCGGAGGAGCTCCAGG
CCCGTCCGCGCGGAGTGGTCTCACGTGTGAAACATGGCTACAGATTGGCTGGGAAGTATT
GTGTCCATCAATTGTGGAGATAGCTTGGGTGTCTATCAGGGAAGAGTGTGAGCTGTGGAT
CAGGTGAGCCAGACCATTTCTCTACCCGGCCTTTCCATAATGGAGTGAAGTGTCTTGTT
CCAGAAGTCACCTTCAGGGCAGGTGACATTACGGAGTTAAAAATTCTGGAGATACCAGGA
CCTGGAGACAACCAACATTTTGGAGACCTTCATCAAACAGAATTAGGCCCTCTGGTGTCT
GGCTGCCAAGTGGGCATCAATCAGAATGGCACAGGCAAGTTTGTCAAG

Sequence 1812

CCGCGTCCGCCCAGTCCNAGTGCTGGCTTTCCCTGTATCTGCCTCTGCCAGGCAACACTT
ATCATGGCTCCCAATCAGCAGGAGCCTCCATGCTCCACTTTGAACAGCCTCTATGCTCCA
GCAATGGGGCATTTGTGAAGAGTGACTTGATTAACCTTTTCTGACCATGGGTATAATACAG
TTGCTTCAGAGGGCAGTGGTCTGGGTGTGATTTTTACACTGTAACATTGTATACAGTGT
CATGGATAATTACTATTTTTTCTGGTCATTAACACTCACCTACTCTAGTACTAGGATT

TABLE 1
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CAGACCAAGGTCCTCATGACGCCTGGATATTTTAGTATCTATATCCAATAATCTTTTCTC
TCCTACTGAATATCCAGGCAAAGATGAAATCGTTTTCTTTAAACTGTCAAATTCTGTAA
AACTCAGGAGCCAGTTCAAGGGAACAAGCATCTTCACAATAGATGGAATCAAGAGTTAAA
TGTTATAGTGGCAAGCTTGTCTACTGGGCAACAGAC

Sequence 1813

CGCGTCCGCCCGCGCTCCGCTCCCGGTCCCTGGCCCCCTCAGCGGCATGGCGTGCGGGGC
GACGCTGAAGCGGCCCATGGAGTTCGAGGCGGCGCTGCTGAGCCCCGGCTCCCCGAAGCG
GCGGCGCTGCGCCCTCTGCCCGGCCCACTCCGGGCCTCAGGCCCCGGACGCCGAGCC
GCCGCCGCCGTTTCAGACGCAGACCCACCGCAGAGTCTGCAGCAGCCCGCCCCGCCCGG
CAGCGAGCGCGCCTTCCAACCTCCGGAGCAAATTTTTCAGAACATAAAACAAGAATATAG
TCGTTATCAAGAGGTGGAGACATTTAGAAGTTGTTCTTAATCAGAGTGAAGGCTTGTGCT
TCGGGAAAGTCAACCTCACTCCTCAGCACTCACAGCACCTAGCTCTTCCAGGTTCCCTCAT
GGATGAAGAAGGACCAGCCACATTTACC

Sequence 1814

CGCGTCCGTTGAAGAATAATATTGTATGTGCATTTTATCCATTAATGTTTCATACTTTCT
GAGAGTATAATACCCTTTTAAAGATATTTGGTATACCAATACTTTTCTGGATTGAAAA
CTTTTTTAACTTTTTAAATTTGGGCCACTCTGTATGCATATGTTTGGTCTTGTTAA
GAGGAAGAAAGGATGTGTGTTATACTGTACCTGTGAATGTTGATACAGTTACAATTTATT
TGACAAGGTTGTAATTCTAGAATATGCTTAATAAAATGAAAAGTGGCCATGACTACAGCC
AGAAGTGTATGAGATTAACATTTCTATTGAGAAGCTTTTGAGTAAAGTACTGTATTTGT
TCATGAAGATGACTGAGATGGTAACACTTTCTGTGTAGCTTAAGGAAATGGGGCAGAAATT
CGTAAATGCCTGTTGTGCAGATGTGTTTTCCCTGAATGCTTCGTATTAGTGGCGACCAG
T

Sequence 1815

GTCGCCCCGCGTCCGATTTAACTGGGTCTTTATAAAAGTAAATGGCCAACATTTAATT
ATTTTGCAAAGCAACCTAAGAGCTAAAGATGTAATTTTTCTTGCNATTGTAATCTTTTG
TGTCTCCTGAAGACTTCCCTTAAATTAGCTCTGAGTGAAAAATCAAAAGAGACAAANGA
CNTNTTCGANTCCANNTTTAAGGCTGGGGGAAANTGGGTTTTTTCAGCNCAACCNNTNCAA
AAGTTTTNTTTNGGGGATTACATAACANCNCCACCNAATTGNTTTTTTGTGGCANACATT
CATTTCAATACTAGTTATATTNANNAGGAGTNGGTAGAGAGGAAACATTTGACTTATCTG
GNAAAAGCAAACCTGTACTTAAGAATAAGAATAACATGGNCCATT

Sequence 1816

TCGACCCCGCGTCCGCTCTGCTCCTTGTCTCCTCTNCCTTTTTCTGTCTTTGCCGGGTC
TCTGGGTCTCTGACCCCATCCGGCCCTCATGGCTTTGGGTCNGGAGCTNTTGAAGCAAT
GTTTCATCAT

Sequence 1817

CCACGCGTCCGGGGGAGCCGGACGCCAGAGTCCCCTCTCCACGCCGTGCAGCTGCGCTGG
GGCCCCCGCGCCGACCCCGCTGCTGCCGCTGCTGTTGCTGCTGCTGCCGCCGCCACCC
AGGGTCCGGGGGCTTCACTTAGACGCGGAGGCCCCAGCAGTACTCTCGGGGGCCCCGGGC
TCCTTCTTCGATTCTCAGTGGAGTTTTACCGGCCGGGAACAGACTGGGGTCAGTGTGCT
GGTGGGAGCACCCAAGGCTAATACCAGCCAGCCAGGAGTGCTGCAGGGTGGTGCTGTCTA
CCTCTGTCTTTGGGGGTGCCAGCCCCACACAGTGCACCCCATGAATTTGACAGCAAA
GGCTCTCGGCTCCTGGAGTCCTTACTGTCCAGCTCAGAGGGAGAGGAGCCTGTGGAGTAC
AAGTCTTTGCAAGTGGTTTCGGGGCCAACAGTTCGAGC

Sequence 1818

TCGACCCACGCGTCCGGTGAAACACAAAACCAAGGAGTACATTAAGAAGTACATGCAGAA
GTTTGGGGCTGTTTACAAACCCAAAGAGGACACTGAATTAGAGNGACTGTTGGGCCAGGG
TGGGAGGATGGGTGGTCAGGTAANGACAAGACTCTAGGGNAGAAGGAAANCCTGTGGGCC
TTTNTGTCCCACCCCTGTGAGCACTGGTGCTACTGATTGATACATNACCCTGGGGGGNAA
TTNAACCCTGCCAGNATGTCAACNTGGAANGGCCACAAAGAAGTGGAACCTCCCATCTAC
AAAANNAGTTTACNCTTANATTTGTAGAAGCCTNGTTTGGCCATTGTTGCNNNTAGAN

TABLE 1
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AGTCCATNNANTAGGNGGCAAGGGGGCCNTANTAAAAATGAACCCCTGGNACAGAACCT
TGNACTTNCACATTCTTTAAANCCCTGGGAGATGNTTGGCTTCTNTGGGNCNGTTGN
TTTGNTTCAAGCTGCTACNAAGTAACTCTCAATGGCCGGCAATTATCCCCAACTCNCACN
AAACTCONTTTTTAACCCCTGGCANGGAATCCTTGCAAATTTAATAATTTTTAAATGGG

Sequence 1819

GTCCGGCTTTAGTGAATTCTTAATAGATNGTATATATAAAAGTACATTTTAAATAGAAAGC
CAGGGTTTTAAGGAATTTACATGTATAAGGTGGCTCCATAGCTTTATTTGTAAGTAGGC
TGGATAAATGGTGCTTAAATGGTAATGTACTCCACTTCTTCTATTGGAAGATTAAACATT
ATTTACCAAGAAGGACTTAAGGGAGTAGGGGGCGCAGATTAGCATTGCTCAAGAGTATGT
AAAAAAAAAAAAAAAAAANGAACCAAAACCACTGGAAATAATCAAATGCAAAAAGGTAA
CAAATTCATAACTGGAAAGCAAAGAGAAGAACAAGTATGATTTGGATGATAAAGCATTGT
TTAATGGTGAAAACCTTACCAGATCACTTAATGTTTCTAGGAGGTTAACTTCAAGTGGG
CAANTGGGGGTTTTTAGGTAGGTCAGTGGCCCTAAGTTCCTAAAGCCACAGATTAGGGA
TCTGTAAACTGAATGGTCTGTTGGAAAGGTTTTGTTTTAACTGCTTGGGAGGCTTTCCT
TTAAG

Sequence 1820

GCGTCCGGGAAAAGTTTGCCTTCCANGCCGAAGTTAACAGAATGATGAACTTATNATCA
ATTCAATTGTATAAAAAATAAGAGATTTTCTGAGAGNACTGATTTCAAATGCTTCTGATG
CTTTAGATAAGATAAGGCTAATATCACTGGACTGATGAAAAATTGCTTTTNTTGGAAAT
GGAGGAACTAACAAAGTCAAAAATTAAGTGTGATAAGNGAGAAGAACCCCTGCTGCATGTC
ACAGACACCTGGTTGTCTGGAAATGACCAGTAGAAGAGTTGGGTNTAAAAACCTNTGGT
ACNCATTAGTCCAAATCTGGGACAAGNCGGAGTTTTTTAAACAAAAATTGACTTGAAAG
CCACCAGGGAAAGATGGCTCAGTTCAAACTTTTTGGGAATNTGGATTGGGCCAGTTATG
GTGGTCCGGTTTTNCTATTTCCNCCTTTCCCTTGTAGCAGATTNAAGGTTATTTNGTC
ACTTTCAAAAAACAACAAACAAACNGATTACCCCAAGCAACATCTTGGGGGAGNTCTTGA
CTTCCAAATG

Sequence 1821

CGTCCGCGGTAAATGTTATGGTAAGCATGCACANGTTTGCAGTCTACAGTTTTTTTAT
GTAGCACAAAATAGGTGTACCTTTATAAGTACATTCAATTTTATGATTTACATTTATCAT
GTAATTTTTAAAAAATCCATCTATCTAGGATATGTTGGATACAAAGTCTGCTTTTGCTA
TTCTTTTGTCTTAAATACTCCTATCATTTTCTGAATTACTTGGTATTTAGAACTCCTAGC
ACCACGGGGAAGAATAGAGGTATCATCAACGTGGCAAATTTTCTTTCAGGAATAATAAA
GAGCATGATTCCACAGCTTTTCTGGGGATGTTTGAGATTCTTTTTTAGTACTAAGCAAAA
TTCTCATCACAGGAATGTAGCCCAGGCCAATTTATACTAAATCTCTATTTTGTTCGGAT
GATGCTTCTAAAACAGCATTGATAGGTTAAAGAAGCTTGGGTATTTTAAATTTACTTCAA
TGATTAGCTCAATTGCTTCTGGGAGTTTAACTCTGTGGATATGTCAT

Sequence 1822

GGGCGCCCCGCGTCCGCTGATCTCGGGCTCCTATTTTCAATTTACATTGTGTGCACACCAAC
GTAACCAAGTGGGAAAACCTTTAGAGGGTACTTAAACCCAGAAAATTCTGAAACCGGGCTC
TTGAGCCGCTATCCTCGGGCCTGCTCCACCCTGTGGAGTGAATTTTCTTTTCAATAAA
TCTCTGCTTTTGTGCTTCATTCTTTCCTTGTCTTGTGTGTTGTCCAGTTCTTTG
TTCAACACGCCAAGAACCTGGACACTCTTCACTGGTAACATATTTTGGCAAGCCAACAG
GAGAAAAGAATTTCTGCTTGGACACTGCATAGCTGCTGGGAAAATGAACATCAGTGTGA
TTTGAAACGAATTATGCCGAGNTTGGTTCTAGATGTGGGAAGAGTCACTCTTGGAGAGA
ACAGTANGAAAAAATGAAGGATTGTAACTGAGAAAAAAGCAGATGAAAGTGTCTCACG
AGCTATGTGTGCTCTGCTCAATTCTGGG

Sequence 1823

CCCCGCGTCCGGTCCCTTTGGCACTGTCATNTGTGTCCCTCGAGTGAGCNTCACCAGAGCT
GCAGTAANNNGNCACCTACTACNGGCTCTGNGCTGAGTCCTTCCAGTGNGCCTCTCACTG
AATNCTCACCCCACTGNCATGAGGTTTNCCTTACTTGAATGATGAGGGTGNAGAGCCAGG

TABLE 1
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GAGCCTTGNTCACTGGTTCATTGANTACATTTACAAATATTATTNACAGAGTGGGAGAAG
AGCCGTATAGGGNCTTAATGCCATGGTNGGGACTTTGGAATTTAATTCAAGTGATGTGGG
AGTACCTGCCAGATGGATGGAGGGTGAAATAATGCTTAAGCCCTCAGCC

Sequence 1824

CGCCACGCGTCCGCACCGGCCCGATGAGCTGCAGCGGCTCCGGCGCGGACCCCGAGGCG
GCTGCCGGCCTCCGCCGCTCGGCCCGGGCCCCGCGCCCCCGGACTNNGGCTCCCGCCGC
GCTGCCCTCCAGCACCGCCGCGGAGAACAAAGGNCAGCCCCCGNNGGGACAGGNNNGGGA
GGACCTGGGNGCTNNGAGCAAGCATGCTGGGGGGCACAGGGACCCTTTGGCGGAAGCCG
GGCCGTAGAGCNCAGCNTGAAGCAGGNTNTGAGGAGCTGGNTCCCTGNGNATNGGNNGA
GGATGGGCCGCGNGGANGCCCTCTCCGNGAAGGGGGGNGCTCAATAATCTTAACCGGGGG
TTTNA

Sequence 1825

CGCGTCCGGCTGAAGGCTCCCCTGGGNTTCTGGCCTCCTGGGGCAGAANGGGAGAGAAA
GGCGATGCTGGCAACTCCATTGGAGGAGGCAGAGGGGNACCTGGCCCTCCAGGGCTCCCT
GGGCCCCCAGGGCCAAAGGGAGAGCAGGTGTCCGATGGCCAGGTTGGCCCCCAGGGCA
GCCAGGAGACAAGGGGGAGCGTGGAGCAGCTGGAGAACAGGGACCAGATGGCCCCAAGGG
CTCCAAGGGAGAACCAGGGAAAGGAGAGATGGTGGATTACAATGAAACATCAATGAGGC
TCTCCAGGAGATCCGACGCTGGCCTTGATGGGGCCTCCTGGTCTTCTGGGCAAATTGG
CCCACCTGGAGCTCCAGGGATTNCAGGCCAGAAGGGGGAGATTGACTGCCANGGCCTT
CAGGACACGATGGGGAAA

Sequence 1826

GTCGACCACGCGTCCGGTTTTTTTTTTTTGAGACAGAGTTTTGCTCTTGTTGCCCAGG
CTGGAGTGTGATGGCTCGATCTTGGCTCACCACAACCTCTGCCTCCTGGGTTCAAGCAAT
TCTCCTGCCTCAGCCTCTTGAGTAGCTTGGTTTATAGGCGCATGCCACCATGCCTGGCTA
ATTTTGTGTTTTAGTAGAGACAGGGTTTCTCCATGTTGGTCAGGCTGGTCTCAAACCTCC
CAACCTCAGGTGATCTGCCCTCCTTGGCCTCCAGAGTGTGGGATTACAGGTGTGAGCC
ACTGTGCCGGGCCGTCCTCCTTTTTTAGGCCTGAATACAAAGTAGAAGATCACTTTC
CTTCACTGTGCTGAGAATTTCTAGATACTACAGTTCTTACTCCTCTCTTCCCTTTGTTAT
TCAAGTGTGACCAGGATGGCGGGAGGGGGATCTGTGTCACTGTAGGTACTGTGCCCAGGA
AGGC

Sequence 1827

CGACCNCGCGTCCGGCACTCTGTTCTTCCGCCGCTCCGCCGTCCGCTTTCTTGCCGGTG
AGCGCCCCGCCCCGGGGCCTGAGCTGGACGTGCGAGGCCTGCGCCCCCGACCCCGGCTG
GCCCGCTTCCAGCTGCCGAGGCCTCGTCGCGCCTTCCCCGGGAACAAAGCGGGGTGCG
CAATGGAAGAAGAGATCGCCGCGCTGGTCATTGACAATGGCTCCGGCATGTGCAAAGCTG
GTTTTGCTGGGGACGACGCTCCCCGAGCCGTGTTTCTTCCATCGTCGGGCGCCCCAGAC
ACCAGGGCGTCATGGTGGGCATGGNCCAGAAGGACTCCTACGTGGGCGAC

Sequence 1828

CNCCACGCGTCCGGACCGGGGAAGACGCCTCTTCGCCGCTCCGAAAACCGAGGCAGCGA
GCGACCCCCAGCATCCCGCGGCCTCCGAAGGGGCCGACGCCGCCGCCGCTCGCCGCCAC
TGCTGCGCTGCCTAGTGCTCACC GGCTTTGGAGGCTACGACAAGGTGAAGCTGCAGAGCC
GGCCGGCAGCGCCCCCGGCCCTGGGCCCGGCCAGCTGACGCTGCGTCTGCGGGCCTGCG
GGCTCAACTTCGAGACCTCATGGCTAGGCAGGGGCTGTACGACCGTCTCCCGCCGCTGC
CTGTCACTCCGGGCATTGGAGGGCGCCGGGGTGTNTGATCCGCAGTGGGCGAGGGGAGT
CAGCGACCGCAAGGCAGGAGACCGGNTGATGGTGTGAAC

Sequence 1829

GGTGTGCCCCCGCGTCCGCTTGTCTTTTTGGGGGTGTGAATTTTTGCATTGTTCTGAT
CATATTTCTTATCATGTAATTTATGTTCTTTTTACTAAGTATTATGTGTGGTTATTATA
GATTTTCACAAAGATATATTGCTGGTAATATTTTTATTGTGTAGTCTTATAATTTACTT
AACCTTCTTTCAATTGTTAGAAATTTAGGCTATTTCCAGATTTTCAGTATTGTAAATAAT
GCTGTGATGACCAATTTTGTGAATAAAATGTTTTATGTATTTCAATTATTCCCTTAGG

TABLE 1
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ATAGTCTCTCAGTGCCAAGTTGTCAAAAACATCTCTATTTTGCTTATCTTCCTGCTCTCT
TGCTGCCTTAGGGGGTAGTAACTGAAACATAAAGTAAACATGCATACAAATAAAAAACA
TAAAACAAAATAAGCAACCTGATGGTAATAGGTGAAAGTGGTAACCTGTTTTAACTTG
AATTCTTGCCCGGCGCGGTGGGCTCACGCCCTGTAATCCCAGCA

Sequence 1830

CGCGTCCGGTAAACCAGCCGGAGCGGGCGGGNAGCGGCAGGACCGCCGTGGCGCCTAGAG
TAGCAGACCCGGGGGGAGCGCGGGGCGACGCTGGCTGCAGGGACCCGGTGACAGCGTGAG
AGGTTTTGACAAGCTTGCATCATGCGTGAGTATAAGCTAGTCGTTCTTGGCTCAGGAGGC
GTCTGGAAAGNCTGCTTTGACTGTACCAATTTTGTTC AAGGAATTTTTGTAGAAAAATAC
NGATCCTACCGATAGGAAGATTCTTATAGAAAGCAAGTTTGAAAGTAAGATGCACAACCA
GTGTATGCTTTGAAAAATCTTTGGATACCTGCCAGGNAACCGGGAGCCAATTTACANCCA
ATGGAGGGGGATTATAACATGNAAAAAATGGGACAAAGGGATTGTTCATTAGTTTAA
TTNCAATCACCAGACACAAGTTCCCAACATTTTAAAACGAATTTTACCAAAGAACCCTG
GAGGAGNAACCAAGAANTTCTTTNNGAAGTTTAAAAAGGAACCACCTTGAATTGGAATG
GTTTCCCAAATG

Sequence 1831

CCAATTATAGACTATATAGGGGGAAGAGCACTGGATTTGGAGTCAAGAAACCTGGACACT
TGGCTCCACACTTCCTTAGCTGGGTAACTTTGGGCAAACCGCTTGGTCTCTCAAGCCTAA
GGTTCTTCAGCTATAAAATGGGAATAATACTTCACTAACTACCTCACAGAGTTGTGGTAA
GAATATAATCAGATAACTGGATAAAAACACTATATAAACTGGAAAGCGCCGTACAAATGT
GAGAGATCAGTTTTATTATCAAATCACTGTTTTCCACTGCCTCTTGAATCGGCTTTATTC
TAACCAACCATTACATCTTTCTCATCTTTGGAGTATGGGTAATTGAGGCTTGGGTGTGT
CATCAGGGACTGGGAAGTTATTCAGCTCCCATGTAAAAGGTGGGAGAGGTGGTTTGTGG
GNGCAG

Sequence 1832

GNGTCGACCNCGCGTCCGCTATTTACTACCTCCTTATGAGGAAGTGGTGAACCGACCTCC
AACTCCTCCCCACCATACAGTGCCTTCCAGCTACAGCAGCAGCAGCTGCTGCCTCCACA
GTGTGGCCCTGCAGGTGGCAGTCCCCCGGGCATCGATCCCACCAGGGGATCCCAGGGGGC
ACAGAGCAGCCCCCTTGTCTGAGCCCAGCAGAAGCAGCACAAGACCCCCAAGCATCGCTGA
CCCTGATCCCTCTGACCTACCAAGTTGACCGAGCAGCCACCAAGCCCCAGGGATGGAGCC
CAGTGGCTCTGTGGCTGGCCTGGGGGAGCTGGACCCGGGGGCCTTCTTGACAAAGATGC
AGAAATGTAGGGAGGAGCTGCT

Sequence 1833

GCCNCGCGTCCGTGAAACGCAAAAGAAGGAGCTCGGAATATAAGAACGTCAGAACGAGTG
ACACTAATAGTGGATAACACTAGATTTGTTGTAGACCCATCCATTTTTACTGCACAGCCA
AATACAATGTTGGGCAGGATGTTTGGATCTGGCCGAGAACATAACTTTACACGACCCAAT
GAGAAAGGAGAGTATGAGGTGGCAGAGGGAATTGGTTCCACTGTGTTTCGAGCGATTCTG
GATTACTATAAAACAGGAATAATCCGTTGTCCTGATGGCATATCTATTCCTGAACTGAGA
GAAGCATGTGACTATCTTTGTATCTCTTTTGAATATAGCACTATTAAATGTAGAGATCTC
AGTGCCCTAATGCATGAGTTATCAAATGATGGTGCTCGTAGACAATTTGAATTTTATCTG
GAAGAAATGATCCTCCCTCTCATGGTAGCTAGTGCCAGAGTGGGGAACGG

Sequence 1834

CCNCGCGTCCGCTTTAACCACCATAAGAAATCAGAAAACGCAAGATAAAGTTTCAGCACAC
AGTATGTATGGATTGCAGTAGCTACAGTACATACTGTTATCGCTGTGATGATTTTGTGGT
TAATGACACCAAGCTGGGACTGGTACAGAAAGTCAGAGAACACTTACAGAACTTGGAAAA
CTCAGCTTTCACAGCTGACAGGCATAAGAAAAGAAAACTTTTGGAAAACCTCAACACTAAA
CAGCAAGTTATTAAGTAATGGAAGCACCCTGCCATTTGTGCCACAGGCCCTTCGGAA
TTTGGGGAACACATGTTTCATGAATGCCATCCTTCAGTCACTCAGTAACATTGAGCAGTT
TTGGCTGTTATTTCAAAGAACTGCCCCGCCGTGGAGTTAAGGAATGGGAAAACAGCAGGA
AGGCGGACATACCACACCAGGAGCCAAGGGGATAACAATGTGTCTTTGGTAGAAAG

Sequence 1835

TABLE 1
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TTACTGGGCACCCANCTCCATGTGCANGACTTTTCCCAACACAGCCTTGGCCAGTCAGAT
GGTGTGNCAGGGCCNNAGGTTTNCGTANCCTCTTGGGTGATAGAAAGGGGCCAGGCCCT
GGGCTGGGGCTCATAANGGACTCAAANGAGGCACCTTGCCC

Sequence 1836

TCGCCCCGGGGGCCATGGCAGCAGCGGCTACTGCAGCCGAGGGGGTCCCCAGTCGGGGGGCC
TCCCGGGGAAGTCATTATCTGAATGTGGGAGGCAAGAGATTACAGTACCTCTCGCCAGAC
TCTACCTGGATCCCAGACTCCTTCTTCTCCAGTCTTCTGAGCGGACGCATCTCGACGCT
GAAAGATGAGACCGGAGCAATCTTCATCGACAGGGACCCTACAGTCTTCGCCCCCATCCT
CAACTTCCTGCGCACCAAAGAGTTGGATCCCAGGGGTGTCCACGGTTCAGCCTCCTCCA
TGAAGCCCAGTTCTATGGGCTCACTCCTCTGGTTCTGCGCTGCAGCTTCGAGAGGAGTT
GGATCGATCTTCTGTGAAACGTCCTCTTCAATGGTTACCTGCCGCCACCAAGTGTTCCT
AGTGAAGCGGCGGAACCGGCACAGCCTAGTGGGGCCTCAGCAGCTAGGAGGACGGNCAGC
CCCTGTCCGACGGAGCAACACGATGCCCC

Sequence 1837

CGCGTCCGTTCTAGATCGCGAGCGGCCGCCCTTTTTTTTTTTTTATCTTTCTGTTTTTC
CACTAAAAGCTCCGTTTTTCCATCTTCCATTACTCTCCCTTCTCTGTGNACACTCCTGA
AGACAGGCATCCTCATAAGGTGTTCTGAATTAACCTTTAGGGNGTTCTCCAGGTACTTTGC
ATCTTTTTATATTTCTGTAAATTGNTAATTTCTAAGCTCCATGATTAAGAGAATTCAC
CACTAAAAAAAAAAAAAAGG

Sequence 1838

CGCGTCCGGGCTGGCGAGCGCCGNCGCCGGCGGAGACCGACNCTNGGCCAGAGCCNGCCC
GCGGCGCCCCGGGCTGGCCGGCTGCTTCCCGCCTCAGCNNGGCGCCCCNGCCTCCGTGCG
CCGCAGACTTTGCCTAGGCGGGCNGAAGCTGAACAAGAGGTCCCTCGGCCCTGCACGGTC
CGGCCGCGGTCCGGAGCCGANGCGCATGAGATTCCCCAGGAAGCCATCACACTCCTTCCC
ACTGTGGTTTNGGGAGCATGAAGGCGTTG

Sequence 1839

GCCCCGCGTCCGTTTTATTTGCACTTTTATGGGTGACAGTTTTTACGCATAACCTTTGA
TAAATACACTCAAGTGACTTGGACTTAGATGCTTATCCTTACGTCCTTGGTACCTTTTT
TGTATTAACAACACTGCAATTTATAGATTACATTTGTAGGAAGTTATGCTTTTTTCTGG
TTTTTGTTTTACTTTCAACCTAGGTTATAAGACTGTTATTCTATAGCTCCAACCTTAAGGT
GCCTTTTTAATTCCCTACAGTTTTATGGGTGTTATCAGTGCTGGAGAATCATGTAGTTAA
TCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCCAGCCTACATTCACTTCTAAA
GTCTATGTAATGGTGGTCATTTTTTCCCTTTTAGAATACATTAATGGTTGATTTGGGGA
GGAAACTTATTCTGAATATTAACGGGTGGTGAAAAGGGGACAGTTTTTACCCTTAAAGT
GCAAAAGTGGAACATACAAAATAAGACTAAATTTTTNAGAGGTAACCTCAAGTAATTTTC

Sequence 1840

GTCCGGCCAGCTGATGCCGGGAGCTAACTACCGCGCCGGGGCCGGGGCCGGGGCCGGGGC
CCGACGTCCCCGCGGGGCCCGGGACCGNGAGGAGGACGGCGGGGGCCTGGAGCCCGCGGC
CGTGGCCCCGCGACCTATTGAGGGGCACATCTAACATGTCATTTGAGGAGCTGTTGGAATT
GCAGAGCCAAGTGGGGACTAANACNTACAAACAATTGGTAGCTGGAAATAGTCCTAAGAA
ACAAGCTTCTAGACCACCTATCCAAAATGCATGTGTTGCANATAAGCACAGGCCTCTGGA
AATGTCANNCAAGATCCGAGTNCCATTTTTACGTCAGGTTGTTCCCATAGTAAAAAGGT
AGC

Sequence 1841

GCACCCGCTGNGAGAGGCGGTAGCGGCGGCGGCGGCGGTGGTATCGGCGGCAGCTGTGAG
GGGGTTCCGGGAAGATGGTGCTGATCAAGGAATNCCGGGTGGTTTTGCCATGTTCTGTTT
AGGAGTATCAGGTAGGGCNAGCTTTACTCTGTTTGAAGAAGCTTTGTAATGAATTGAGA
CTGGGTGGGTGGAGAAGGAATTGAAGNTCTTAAAGAATGAACCTTATGAGAAGGATGGAG
AAAAGGGACAGTTTTACGCACAAAATCTATCACCTAAAGAGCAAAGTTGCCTGCATTCTGT
GAGGATGATTGCTCCCGAGGGCTCCCTTGGTGTTCATGAGAAAAGCCCTGNAAATGCCG
TACCCCTACTGTAGNAACAATTNTNAACCGAAATGGAATATATTGAAANGAATGATTTTC

TABLE 1
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CTTCAATTNAAAANTCCGAAAACAATNGGCANCCAAAACCCATNACTTTGGGGAACCATN
TAGGAAAAAANNGTACCNATNGGGTTTTAGGATTCCCAAACCACNATTGGGAAAAAAC
CTTG

Sequence 1842

CCCGCGTCCGGCGGAGAAGACTCAAAGAGTGTGAAGATTGCTCCTGGAGCAGTTGTATG
TGTAAGAAAGTGAAATCAGAGGAGATGTAAGTATCGGACCTCGGACAGTGATCCACCCTAA
AGCAAGAATTATTGCGGAAGCCGGGCCAATAGTGATTGGCGAAGGGAACCTAATAGAAGA
ACAGGCCCTTATCATAAATTGCTTACCCAGATAATATCACTCCTGACACTTGAAGATCCA
GTAACCAANAACCCTATGATTCAATTGGCACCAATAAATGTTGTTTGAAGTTGGGCTGGT
TTATTCCCAAAGGCCCATTTGAAAGATGGGGGAGGATAAAATAAATGGTCATTTGAAATCA
AAAAGTCAATTATTGTTAGGCCAGAAAATGGTAAATATTTGGACCAAGTTGGCTTGCATT
CATTTGGGNGGGCTTTGGTTGCAACCTTAAANTACATTTTGAAGTTCATCCCCTGGAGA
ATACCNGGTGGAATCCTTAAT

Sequence 1843

CGACCNCGCGTCCGGGGGATCTGTGCCTGGCATGGGGACGAGTTCTGGCCTCCTTAGGGT
ACGGGGAGAGCTTGGACTTTGGTCCTGACGTGGTGGACGACACACCTTCGAAGAGTGGAC
GTTACCTCAGTTGTCTGTTGTTAGAGTTTAAATCGATCACTCCTCTGTTTTGTTGTGTTCT
TTCCCAAGAAATACTTTACCAAAGGAAAGCTATTTTGCGAACTATCTTCTCCAGCGGAGA
TGGCCAATGTGCTTTGTAAACAGAGCCAGACTGGTTTCCTATCTCCAGGATTTTGCTCTT
TAGTTAAAAGGGTTGTCAATCCCAAAGCCTTTTCGACTGCAGGATCATCAGGTTCCGATG
AGTCTCATGTGGCTGCTGCACCTCCAGATATATGCTCTCGAACAGTGTGGCCTGATGAAA
CTATGGGACCCTTTGGAC

Sequence 1844

GGGACAGAGCCCCCGATCCGCCAGCACCACTGAGGATTNNGAAACCGCCCCAGCGATGG
AAGAGGGNCAGGAGCTGGAGAGGAAAGCAATAGANGAACTGCTTAAGGAGGCAAAACGTG
GGAAAAGTAGAGCTGAAACAATGGGACCCATGGGTTGCTTATTACAGGGACAAGATACAA
ACTAAAATCAGCCAAAATAAGACACAAAGATTAAAGCCA

Sequence 1845

CGTNCGGGACCCGNCACATGGGCGCGTTCGCACCAAAAACCCGTGAAGAAGGCGGCCCCG
GGTCATCATAGAAAAGTACTACACGCGCCTGGGCAACGACTTNCACACGAACAAGCGCGT
GTGCGAGGAGATCGCCATTATCCCAGCAAAAAGCTCCNCAACAAGATAGCAGGTTTATG
TCACGCATCTTGATGAAGCGAATTTAGAGAAAGGCCANTTAAGGAGGTATCTTCCATCA
AAGCTGCAGGNAGGAGTGANGAGAGNAAAGGAGTAGACAATTATGTTTCCTGAAGGTCTC
AGCCTTGGGATCAAGNGAGAATTATTNGAAAGNTAGATCCCTGNACAACTAAAGGAAATG
CTTGAAGNCTTTTTGGACCTTCGNCAGGTTCTTGTCCAACCCTTTCAAGGTTCACTTCAG
GCCTACAAGTTGGGGATTGAAATTTTTCAAAAACGCCNTCGGGGGAACCCTGTTTTGAAA
ATTTTTTTCTTGNTAGNTGCCTTGATTAATTTTT

Sequence 1846

GTCGACCCCGCGTCCGCAGCCTGGCCTGTGAGACCCTCGTGGACAACAACCTGCGGGTCA
CCAAGTCCCAACCGCAAGCTGGGCTGCAAGTGCCAGTACAAGCACATTGTGGACTGGTGTG
GCTGCTGCCCCAACGACTTCAAGCCACAGGACTTCTCCGGCTGCAGCAAGTCTCCAGAC
CCACCTTCTTCGCCCGGAAGTTTCGAGTCGACTGTGAACCAGGAGGTGCTGGAAATCCTGG
ACTTCCACCTGTATGGCAGCTACCCCCCGGCACGCCAGCCCTCAAGGCCTACTGGGAGA
ACACCTACGACGCGGCTGATGGCCCCAGTGGGCTCAGTGATGTCATGCTCACTGCTTACA
CAGCCTTCGCCCCGCTCAAGCCTGCACCATGCCGCCACTGCTGCACCCCCAATGGGCACC
CCACTCTGCAGGTTTGAGCCCAGGGGCTTTGCCGTCCAAGCGTGCACCTGTATTTCTATG
ACGACCATTTT

Sequence 1847

TCCGCAAGAGTTATGCTTAAGACCAGCCAGCCTTGATAGTGGCAGAACATCCACTAGCAA
TAGCAATAATAATGCTTCACTACATGAAGTCAAAGCAGGTGCAGTTAATAACCAAAGCAG
GCCACAAAGCCACAGCAGTGGAGAATTTAGCCTGCTTCATGACCATGAGGCTTGGTCCAG

TABLE 1

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CAGTGGTAGCAGTCCAATCCAGTACTTGAAAAGACAGACCAGATCAAGCCCAGTGCTCCA
GCACAAAATATCTGAAACACTGGAGAGTCGACATCACAAGATCAAACTGGTTCCCCTGG
AAGTGAAAGTTGTTACTCTACAACAGTTTTTGAAGAAAGCAATAAGCTTACCTCAAGTA
CAGATAAAGTCCTCAAGTCAAGAGAATCTTTAGATGAAGTAATGAAAAGTTTGGCTGNC
TCTTCTGACTTTTTGGGAAAAG

Sequence 1848

GCGTCCGCGCCGGGCGGCTCTAGCCGGTGAGGCCGGGCGGCTCTCTGTGGCTGCGGCTGG
GAAACCGCGCGGAGGAGGTGCCCCGGCCGGGACCAGCCCTGGTCCAGCGCCTCCCTCTCT
CAGCATGGACGAGGAGAGCCTGGAGTCGGCCTTGACAGACCTACCGTGCGCAGCTGCAGCA
GGTGGAGCTGGCCTTGGGCGCCGGCCTGGATTCTGTGAGCAGGCTGACCTGCGCCAGCT
GCAGGGGGACCTGAAGGAGCTCATCGAGCTCACCGAGGCCAGCCTGGTGTCTGTGAGGAA
GAGCAGGTTGTTGGCCGCGCTGGACGAAGAGCGCCCGGGCCCCGCCAGGAAGATGCTGA

Sequence 1849

AGTACCACGCGTCCGGGTTGCACTCTTCCTATAGCCCAGAGGGCGAGAGGGCCTGTGGC
CTGGGGGAAGGAGGACGAGGTTCTGCCTGGATCCCAGCAGTAGGACGCTGTGCCATTTGG
GAACAAAGGAATAGTCTGCCTGGAATCCCTGCAGATCTTGGGGCCGGAGGCCAGTCCAAC
CCTTGAGCAGGAAGAAACGCAAAGTTGTCAAGAACCAAGTCGAGCTGCCTCAGAGCCGG
CCCGCAGTAGCTGCAGACTCCGCCCGCGACGTGTGCGCGCTTCTCTGGGCCAGAGCGAGC
CTGTTTTGTGCTCGGGTTAAGAGATTTGTCCCAGCTATAACCATGGGCCCGCACTCGGNAA
AGCTGGCTTGCCTGGCCGCTGGTGTGGTTATCGGGGCTGGTGCCTGCTACTGTGTATACA
GACTGCTTGGGGAAG

Sequence 1850

TCGACCNCGCGTCCGCTCAGGAACCTTNGAGAAGATNAGNNCCCCACTTAGATTNTTAAG
GAGTAAAAAGGGCTGAGTTATGCCTTTAAGNGCTGTCAAGAATCACTTGGGTTTGGGAC
ATTTGCTGGTGTAATGCTAGATGCCACAGCANCATAATATTGNNCTTTGTCAAAGGTNG
GTAATNCTNTGNTTNTCANCANCCCTTTCCCCA

Sequence 1851

AGTACCACGCGTCCGCGGCTGGTGGTGGGCTCGGGCCGCTCGCCTTGCCCGTCTTCGCT
TCCGGAGGTGCTACTGCCGCCTCAGCGGCCCGGAGCGGGGGCGCCCGGGGGTCTTCG
CCCCCGGCCAGGGTCCCCGCGCCGGGGCTTCGCCGCCCCAGTGTCGAGCTGGATCGTG
CGGACGCCTGGCTCCTCCGAAAAGCGCACGAGACAGCCTTCCTCTCCTGGTTCGCAATG
GCCTCCTGGCATCGGGCATCGGGTCTCCTTCATGCAGAGTGACATGGGTGCGGAAG
CAGCATATGACCATCCCCGACCTTGCCCTGTTGCTACCCTGCCTCTNCCGACGGCTTC
TTNCTGCTGGGCGGCTGTGCGTGGTGTGGGCAAGCGCCTTGACCCGTGGGCCTGGCG
GCGCTTNGAGGACCCATGCAGCTGACCTGGGGGGCGGCGCTGGG

Sequence 1852

GCGTCCGCTCGCTGCAGCCCCGCTGGGCCACGGCACCCCTCGAGCGCCAGCCCCGCGCCC
CACCCGGGAGCAGCGAGCCACCGGCGCGCTCCCCAGGAGCCCCTGCAGGCGCCGGCCCTG
GTCCAGCGCCTCCCTCTCTCAGCATGGACGAGGAGAGCCTGGAGTCGGCCTTGACAGCT
ACCGTGCGCAGCTGCAGCAGGTGGAGCTGCCTTGGGCGCCGGCCTGGATTGCTGTGAGCA
GGCTGACCTGCGCCAGCTGCAGGGGGACCTGAAGGAGCTCATCGAGCTACCGAGGCCAG
CCTGGTGTCTGTGAGGAAGAGCAGGTTGTTGGCCGCGCTGGACGAAGAGCGCCCGGGCCG
CCAGGAAGATGCTGAGTACCAGGCTTCCGGGAGGCCATCACTGAGGCGGTGGAGGCACC
AGCAGCGGCCCGTG

Sequence 1853

GCGCCCCGCGTCCGGAAATTGACCCCTAGAGAAAATCCCATTAACTTGTTAAATTAGTGG
AATTAACAACAAATAAAGCATGTTTGAGACCTGGCAAAAATTCCTCTGGTAGTATTTATA
AATAGAGCTGCATGCCTCTAGTATGAAAACCGTATCAGTTGCAAGTGCCACTTCTACAAG
TACTCAGTTTACTCTTTGTATCAGTAACTTTAAAGGTTGGATGATCCTTGCTGGTTAA
GCTAAATCTCAACCTAGCAACTAAATGAAAATATTTAGAATCATCAGAACTGAACAGAC
TAAATTATCAGCGATAAGCAGAATCAAGCAGGGTATAAGTTTTATCTCAATTATTTGAA

TABLE 1
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ATTGACTGGAGTTTTCTTAAAGTGTAAGCTGAAATTTGCTAACCATGTTTTTATGAAC
CCACAGTGCAGCATTGGGTTGGGGTTTTAGATTTGAATGACTCTCTGCTATAATTATCAT
GACTTTGAAA

Sequence 1854

TGTCGACCCCGCGTCCGAACCTTTGGGAGACTCCAAGACAGCATGCTCCGAGGTCCGGCGG
GGGTCTGGGTGGCCATGGAGGAGCCCCCTGTGCGAGAAGAGGAAGAGGAGGAGGGAGAGG
AGGACNAGGAGAGGGACGAGGTTGGGCCCGAGGGGGCGCTGGGCAAGAGCCCCCTCCAGC
TGACCGCCGAGGACGTGTATGACATCTCCTACCTGTTGGGCCGNGAGCTTATGGCCCTGG
GCAGCGACCCCGGGTGACGCAGCTGCAGTTCAAAGTCGTCCGCGTCTGGAGATGCTGG
AGGCGCTGGTGAATGAGGGCAGCCTGGCGCTGGAGGAGCTGAAGATGGATAGGGACCACC
TNANGAAGGAGTGGAGGGGCTCGGAGACAGAGCCCTCCGGCCAGCGGGGAGGTTGAAC
CTGGGCCCAAACAAAATGGTGGTT

Sequence 1855

TGTCTGCCGAACAACCTGAAAACCTATGCAGGTTATATCATTCCACCAGCACCACCAAGACC
TGATTTTTTATGCTTCAAGGGGAGAAAACCTACATGAAGCTTGGNGAAGNGAGAAGGGTC
AAGTGACCGAANNGCAAGNAATTTACAAANAGAATGAAACNAGGCAACTGGAAAGCTCG
AAATANTTTTGGCAATTATTTAGAGGANAGCACCAGATTTGCCGTATTGCATNGGAANT
TGNTACCCNGTAGTTCCNTGTTGGANATGTCAACANTCCCCTANTNTTTGNACGAAACT
AAGGAATTNTAGAAATTTTGAATNGTTCCTTTACTTGGGGGAAAATTATTNNAATTCC
AAAGGAATCTTTNAGAGNTTGNNTNGCCGTAANGGCAAGAGAGAGNCNATNTNGAAACT
NAGGAAGCGGAAACCTTTTGNAAANAACCTTTCTTTTTTA

Sequence 1856

GAGTCGACCNCGCGTCCGGCGGCGAGCGGGACTGGCCATTGGAGTGCTCCGCTGCGGAGG
GAGGGGACCCCGACTCGAGTAAGTTTGCAGAGCACTACGCAGTCAGTCGGGGGCGAGCAG
CAAGATGCGAAGCGAGCCGTACAGATCCCGGGCTCTCCGAACGCAACTTCGCCCTGCTTG
AGCGAGGCTGCGGTTTCCGAGGCCCTCTCCAGCAAGGAAAAGCTACACAAAAAGCCTGG
ATCACTCATNGAACCACCCCTGAAGCCAGTGAAGGCTCTCTCGCCTCGCCCTTAGCGTT
CGTNTTGGAGTAGCGCCACCCCGGCTTCTGGGGACACAGGTTTGGCACCATGGGGCCCA
CCAGCGNCCCGCTGGGCAAGGCCACCCGAGGCTCGGTCTNTGACTACGNCAACTATGAT
ATTCATTCGTCCGGCATTACAACCTACACGGGGAAAGCTGAATATCAG

Sequence 1857

CGTACGCCGAGCGCCGCTCCGGCTGCACCGCGCTCGCTCCGAGTTTCAGGCTCGTGCTAA
GCTAGCGCCGTCGTCTCCCTTCAGTCGCCATCATGATTATCTACCGGGACCTCATCA
GCCACGATGAGATGTTCTCCGACATCTACAAGATCCGGGAGATCGCGGACGGGTTGTGCC
TGGAGGTGGAGGGGAAGATGGTCAGTAGGACAGAAAGGTAACATTGATTGACTCGCTTCA
ATTGGGNGGGAAATGCCTCCGCTGAAAGGCCCCCGAGGGCGAAAGGGTACCCGAAAGNCA
CCANGTAATCACTTGGGTGTTCCGAATATTGGTTNATTGAAANCCATTCAACCCTTGONA
GGGAAAAACAAAGGTTTTTTCNAACAAAAAAGAAAAGCCCTTACAANGGAAAAGGTTAC
CATTCANANAAGAATTTAACATTTGGAAAATTTCAAATTTCTAAATAGGGGGGAAAAACCT
TTTGAAAGGAAACCAGGANGTACCCCGAGGANAAGGAAGGTAAAAA

Sequence 1858

GNGTCGACCCCGCGTCCGGTGGAGGGTCAGGAGCTGCCCCGGATCCTCTCCATGTAGTTG
CGAAGCTCCTCAGGGTCTTTCAGCCCCATGTCCTCACACACCCAGCGGATGTCCTCCTCG
CCTGCCACAAGGATGGACTGCACAGCAGGGGGCCCTACAGGCTCCTCAGGTGACTGGGCT
GAGGGGCTGGCGCAAATGTCACAACTCTACTCGCTTCCGCCGCCCGCCAGCCTCCTTT
CGGGCCAGGGTGCTTGAGGAGCTGGTGGTGGTCCCCCAGGAGGGCCAGGGGGCAGGGT
GCCTCCCCCTCCTCCCCACTCTCACAGGGGCGAGCTCCCTCCCCCTTGGGCGGGCCAGGG
GACTGCCGGTCCAGCTGGCGGCTCAGTTCCTCCTGGTCAGTGCCAGCCAGACCCAGTTG
TGGGGCTGGGGGAGGTTGGGG

Sequence 1859

GCGCCCCGCGTCCGGCGGGCGGGCGGGCGGGCAGCGGCAGCCAGAGGACTCCAGCGGGCTG

TABLE 1
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GAGCAGAAAGTGTTAGCCGGCCAGAGCTCCCAGACCCCTACCCACAGCCAGGCGGGACGCG
CACAGTCCCTCCACGCGGAAAGAAGTACCTTCGCCGGTCACCGGCTCCTGCAGGGTTGCA
NATATATACAGAGCTTCATAATCAGCCCAAGACCACATAGAGCAAACATGAATGATATTT
CCCAAAAGGCTGAGATTAAAGAAATGCTTGCTTCTGATGATGAGGANGATGTATCTTCTA
AAGTNGAAAAGGCTTATGTTCCAAAA

Sequence 1860

CGACCCCGCGTCCGACCCACTGAAGACGTCTGCGTGAGAATAGAGACCACCGAGGCCGAC
TCGCGGGCCGTTGCACCCACCGCCAAGGACAAAAGGAGCCAGCGCTACTAGCTGCACCC
GATTCCTCCCANTGCTTANCATGAAGAAGGCCGAAATGGGACGATTCACTATTTCCCCGG
ATGAAGACAGCAGCAGCNTACAGTTTCCAACAGCGACTTCACTACTTCTACCCCTCACC
AAGNCAAGCTTGCTCTGAAAAGCCANTTATGCCANAATGTAGGATCCTGAAAACCAAGA
AACTTTTTTACTTGAAATT

Sequence 1861

GCGTACGGCCTGTTGGGCTGTCTGGGGGGTGGCCATTTAGGGATCGTGGGGACGGGGTCC
ACCCCANNAAGAAAGAACAGGCCCGTCCACAGGCCCGGCTCTGGGCCACAGTGCCCCGG
AAGCAGGTGTGTCCAGAGTCANGCTTGAATGGCTCTCCCCACAACCACCCAGCNAGGCGC
TGGTGCNTCCTTCTGCCTCATGGGACCAGTCCAGCTTNCAGCCGCTCTGGGCTCGAGGGT
NGGTACTGACCACTTTCCTTCTTGAGNTGGGAGCATTCTCTGGGGGAGNCTCTTCCAGT
GGGCACCTGCCTGGGACNCTTGCCACCGGTTTTCTTGTAATAATCAGGAATACCGGTGG
CTTTTAGTAAAAGGCAAGACCANAGNCGCCTTNCGTTGGGCAGGGGAAAAGCCAAGCGTG
CCGGNNGGNAAGGTCACTGGAATAAGGTGGCTTGCCCTAAGGGGGAAGTTTGGGAAAATA
GTCCCCCTGTTCCAAGAANTGCCTTTGAATTTTTTAAAAACATTTTTTGGCT

Sequence 1862

CAATNTACAACGCCATGTNCAACCCANATGTTCCAGACTAAGCGCTGNTTTCGACTGGCCC
CCACCTTNAGCAACCTGCTCCTGCAGCCNACCACCAACCCTCATACCTCGGNCAGCCACA
GGCCTTGCGGTCAATGGGGATGTAGACAAGCCTTCAGAGCCAGCCTCTGAGGAGGGCTCT
GAGTNGGAGGGGAGTGAGTCCAGTGGACGCTCCTGTGNGAATGAGCGCAGCATCCANGAG
AAGCTTNAGGTCCTGATGGCCNAAGGNNTGCTNCCTTGCTGTGAAAGTCTTNTGGACTG
GCTTCNGACCAAC

Sequence 1863

NGGAGTCGACCCACGCGTCCGGCCGCCAGAACACAGGTGTCGTGAAAACCTACCCCTAAAA
GCCAAAATGGGAAAGGAAAAGACTCATATCAACATTGTTGTCATTGGACACGTAGATTC
GGGCAAGTCCACCACTACTGGCCATCTGATCTATAAATGCGGTGGCATCCGACAAAAGAA
CCATTGAAAAATTTGAGAAGGAGGCTGCTGANATGGGAAAGGGCTCCTTCAAGNTATGCC
TGGGTCTTGGATAAACTTGAAAGCNTGAGCCGTGAAACCGTTGGGTATCACCATCTGGAT
ATTCTTCCTTTGTGGGGAAATTTTGGAGNACCAGGCAAGTTACCTATTGGTGGACTTATT
CATTTGGATGGCCNCCAAGGGACCACCAGGAGGACCTTTTATCAAAAAAACANTGATTA
CAGGNGGACATCCTNNAGGCCTGGACTGGTGGCTGGTCCTGNATTGGTTGCTGGCTGGGT
GGTTTGGATGGAATTTTGAAGGCCTGGGNTATNCTTCCCAAAGAAAT

Sequence 1864

GCGTCCGATGGCGTGNTGTCTCACAGAAAGTTCTCCGCTCCCAGACATGGGTCCCTCGGC
TTCCTGCCTCGGAAGCGCAGCAGCAGGCATCGTGGGAAGGTGAAGAGCTTCCCTAAGGAT
GACCCATCCAAGCCGTTNCACCTCACAAGCCTTCTGGGATACAAGGCTGGCATGACTCA
CATCGTGCGGGAAGTCGACAGGCCGGGATCCAAGGTGAACAAGAAGGAGGTGGTGGAGGC
CTGTGACCATTTGTAAGAGACACCACCCATGGTTGGGTTGTGNGGCAATTGGTGGGCCTA
CCGTTGGGAAAACCCCTCGAGGCNCTCCGGTACCTTCAAGACTTGTCTTTGCTGGAGCA
CAATCAGTTGAATGAAATGGCAAGAAGGGCGGTTTNTTATTAAGTAATTTGGCCATTAA
AAATTCATAANGAAAGGAAAGGCCCTTTACCAAAGTTACCTGCAAGGAAAATGG

Sequence 1865

CCGGCCGGGCTGGGTCCCAGCACNTGACCCAGCTGCACTGCTGTACAGGGCTGCNCGTC
ACCCGAAGTCAGAAACGTGGCATCTCATCGGAAGAGGAGGAAGGAGAGGTAGACAGTGAA

TABLE 1
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GTAGAGCTGACATCNAGCCAGAGGTTGGCCTCAGAGCCTGAACATGCGCCAGTCACTATC
TACCTTCAGCTCAGNAGAATCCATCAGATGGGGAGGAAGGCACAGCTAGTGAACCTTCC
CCAGTGGCCACACCTGGAAGTTGGCTAGCACCAACACNTGATGAGTCCGGGCNCAGNAT
GAAGCNGNGTTCTGATGAACATGTTGACTCCCAAGGGGCTCAAGAAAATCCCCACNTGGG
ACNCCACTCTCCTTCAGGAGGGTCATACCCTGGGCCCTGGAACCCAGCTCOCTGGCCCA
Sequence 1866
TTGCGCCCCCGCCGGTGAGCGCGGGGAGCGCCGCAAGCCCAACGCCGGGGGAGCCCCGN
TCCGGTGCGCCGCCGCGGAGGCCTCGCCGGTGCAAAAAAGGAGAAGAAGGACAAGGA
GCGGGAAAAACGAGAAGGAGAAGAGTGCCCTAGCCCGGAGCGCAGCCTCAAGAAGCGCCA
GTCGCTGCCCCGCTCCCCACGTGCCCGCCTCTCTGCCAGCACCGCCTCTGAGCTCAGCCC
CAAATCCAAGGCCAGGCCATCCTCTCCTCCACATCCTGGCACAGGCCTGCCTCCCCCTG
CCCCAGCCAGGGCCAGGCCACACTCTGCCTCCAAAGCCACCGTCCCCCGAGGCACCCAC
TGCATCCCCCAAGGGGCGGGTTCGGAGGAAGGAGGCAAGGAGAGCCCCAGCGCCCG
AGGGCCCGAGGACAAGAGCCAGAGCAAGCGCAGGGCCAGTAACGAGAAGGAGTCAGCAGG
CCCAGCCTTACCGGCACCTTTGCGGNGCCTTGGCCAACCCAAGCCCGGCCAAAAGGAG
CAAGCCCCCGNGGAGACCCCTTACAGACCTGGTTTCTTTGACTTAACCCCAAGCCCTTGT
TCCCCGGTGACCCCTAGCAAANCAATGGGCCGNGNACCACAAGANCGAGAAGAAGCCCTT
GGNTNTTGGCTTGAAAGCGGCGCCAGGNCCCCGGGAACAACCGGAAGCCCCANGAGCAAGA
ACCGANGCTTTANGCAAAAAAGGACAAAGCCAATTGCAAAAGGACAACCTTGACCCGGAAG
GCCCAGGC
Sequence 1867
CCCCGCGTCCGTTTAAGAGTTGCATATTTTACTTTATTTTTATTAATTAAGCTACAG
TCTGGCAGCGATTCCAGAACAGGGTAAGGAGGTTCTCAGAGGGGTGAGAGAAGAGCGGA
GAAAGACAGACTGACGGAGACTGAGACACAGGAGAGAAAGGACAAGGTTAAGGGAGAACT
GTATCTGATGAACACACACAGCCGGCTCCATGGCGGGTGACGGGGAGCTCACATCAGCCC
AATTTCTCCTCCCCGGCACCCGAAGTTCAGCGGTGGAGCAGTATGTGGGGGCGGTTAGGA
ATCAAGAGACCCTCCCTTCCCCACCCTAGGTCCTTTCTCGGCTTGGTCGTGGAGCACAGC
ACATACCAGAAAAAGCCAAGGGCAATGGAGGGGCGAGGAAACCGGGAGTATATGTACACG
GGGAGGGGAGAAACAGAGCCTTGGAGGTCGGCCTCTGCCAGAAGGGAAGTGGCTCACACTT
GCATTTGNAACACTTGGCCAGTGGGGGATGGGGGAAAGGAATTGCCCTTCTTTTGG
Sequence 1868
CCNCGCGTCCGCACACCCTTCTGTACTCAGTCCTCAGTTTGCTGGTGAGAGAGCAGC
CTCCTCCCGTGTGCTCTGCCAGCTGGACCCAGACTGGCCATATTACCAGTGAGACCAAAA
AGATGGAGGTGGGGAGGTAGCTCTGAGGTCTGGGAAACCATTCCAGCTCCTGCCAGTTTT
AATTGTGTTTAATTCCTGGCACAGTTGTCTGGAAATGCCTTTTTCTCTTGCCTGGGAA
CCACTAGAAGGGGATGTTGTCTGTGTTGGCCAGGGCCATGCAAATCAACATCTTGTTC
TGCCCTTCCCCCGTGTAGCTGAGGCTAGGTGTTGGCATTACCCAGTGCTTGTCTTCAGA
GAGCAAAAGCACTGCTCGTCATGTCTGAAATTTAGTGAGTGAGCTCACCCACTAGGCTGG
TGTTTCTGCCCCGTGGCTGCACATTGGAAGCACCGGGGCACTTTGAGAACTACAGATGCC
TGGGTCCCAGAGCATCTAAGGTGCTCTAGGGTGTGTCCAGGACACAAGCCCTGGTTGAGG
ACCACTGCTATATTGTATGGCCTCTTTTAAAAAAGTTAATTTTACTTGGAAATGATTTCA
AAGCTACAGAAAAGTTGCAAGAATAAAAACTGTACAAATGAGGCTTAAATATTCTTTGGC
CAAATCACCTATTAACATTTCTGTTCCAAAAA
Sequence 1869
GGGCAGCGCCTCCGACATGAAGGCTGAGCTGTGCAACTTATTAGCGACCTGGGCGAGCT
CAGCTTCGGCAACGACGTGCGCACCCCTGCAGGCCGACTTGCGGGTGACGCGCCTGCTGTC
AGGCGACGACGAGGGCAGCGAGAGCTCCATCGAGGGCGGGGGCCCTGACGCCACCTCCGC
CACCGCOGGGAGTCTGTCGGCCAGGCCGAGCGGCCAGTGACAGACGAGCCCCACTCGGG
CTGAGCTCCTCGCGCGTGCCTGCGGCTCCACCGTGGCTACCCATCCGTGGTCCCCGACAA
CCTCCCTGTCCCTTGGCCGCCCCCAGGAAGGGGGAAATGGGGCATTTGGGGCCAGACCT
ACACTTGGAGCCCAGGTCCAAGCGTTCCCCGACCGCTTCCCTACTNCCGGNCCCCGCTC

TABLE 1
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CCGCCCCAAGAACTTTTGGCTTTTTTGC GCGTG GGGGATGCGGGGAGATTTGAGANGGGNA
AACCCCCGCCAGGAAGGAAGAGAAGAGGCACCCCTTTGGGAATGCCGGTGAAGGGAAGGT
TGGCTGAAGTTCCTAAGTTTAAGGCCTAAGGTGCCTTGGNCAGGTTTCCTGTTTGTGGGG
GAAACTTGGGNCTTGAGGAGGANGGGGTTAAATTTCTTCTTCCAACCCCTGGGAAGCGG
CCTTGCCTTGGANNTGAAATTTAANTNAAAAAAAAAAAAA

Sequence 1870

TCTTCATCATGGGTGCCAGCATCCACCTGGTGGGTGACTCTGTCAACCACCGCTGCTCT
TCAGTGGCTACNAGCACCACCTGTCTGTCCGTGAGAACCCCATCATCAAGAATCTCAAGC
CGGAGACGCTGATCGACTCCTTTGAGCTGCTCTACTATTATGATGAGTACCTGGGTCACT
GCATGTGGTACATCCCCTTCTTCTCATCTCTTTCATGTACTTCAGCGGCTGCTTTACTG
CCTCTAAAGCTGAGAGCTTGATTCCAGGGCCTGCCCTGCTCCTGGTGGCAGCCAGTGGCC
TGTAATACTGGTACCTGGTCAACGAGGGCCAGATCTTCATCCTCTTTCATCTTCACCTTCT
TCGCCATGCTGGCCCTCGTCTGCAACAGAGCGCAAGCGCCTCTTCTGGACAGCAACG
GCCTCTTCTCTTCTCCTCCTTGCACCTGACCCTCTTGCTTGTGGCGCTCTGGGTGCGCT
GGCTGTGGAATGACCCTGTTCTCAAGAAGAAAGTACCCGGGTGTCATCTACGTCCTGAGC
CCTG

Sequence 1871

CCGCGTCCGGTTTGTTCTGTTATAGGTTTAATAAGTCTATTGAGGAAGACCTACTCCTGTG
TGAATCTTTGCAAAGTAATGCTACCGGTGAAGAAATATTCAACTGNATCAACAGTTTTAT
GCAGAAACATGAAATTGAATGGGAAAAATGTGTTGATGTTTGTAGTGATGCTTCTAGGGC
AGTGGATGGGAAAAATTGCCGAAGCTGTCACTTAATAAAATATGTGGCTCCCGAAAGCAC
CAGTAGTCACTGCCTATTATACAGACATGCACTGGCAGTTAAAATAATGCCTACATCTCT
AAAAATGTGCTAGACCAGGCAGTACAAATCATCAATTATATTAAGCTCGACCACATCA
ATCCAGACTATTAATAATTTATGTGAGGAAATGGGTGCTCAGCACACAGCACTTCTTCT
AAATACAGAGGTGAGGTGGCTTTCTCGAGGTAAAGTCTTGTAAAGACTTTTTGAACCTCG
TCGTGAACCTTTTGGTTTTTCATGGATTCTGGCTTTTCGACTATCTTGATTGGTTAACAAA
TTCATCTTGGCTGCTAAGACTTGCATATCTTGCAGATATTTTTACTAAATTAATAATGAAA
GTTAATTTGTCAATGCCAAGGNAAAAATGTGACCCGTTTTACNAGTATTTGATAAAATGT
CGTCATTGGTAAGAAAATTGGAAT

Sequence 1872

TCGACCCACGCGTCCGCGGACGCGTGGGTGTGACTGGCACCCTAATGCCATGCCCTTTATGG
TCACTTGGTAGTATAAAGGCATGGCATTGTTGTGACTGGCACCCTAATGTTTGATTTTTT
TTTTAAACTATCCAATTAATAAAGGTCTGGGAGTGTTCTGTTTCCCATCTTTAATA
CTCACCTCCTCCAGACTTTCTACACCTGTTGCACCTCAGGCAGAGGATGTTCTGGACCT
CCCCCTCTTGGTCCCTACTAGAGACCTCTCAACAGATCTGTGGGCCAGTCATTGGGTTT
TATCAGTGCTTAATGTGAACCTAAGTTTTTTACTTCCACAGAATACAAGCCACTACCTTCT
GACCTCCCCACCCCCACCAACCCCATCTTTTAATATGCTGTGGGGCATAGAACTCCGG
AATGACCAGCATGATATTTTCAGAGTCTTGTCCTCGGGGATTAGCACCTCTTTTTGAAC
AGGGAATTGATTCAAGATTGGACATGGTCTCCTCTGATTATCAGGTACTGGGGCTGAGGG
CATTAATAATAGTAAGCCTCCCTCTCGTCCCTGCCTCAAGAAATTGCCTCTTATTTATC
AACATCTTTTTCTC

Sequence 1873

CCNCGCGTCCGGTGTTCTCCTGAGAATTAGTGGTCAGACATTGCAGAGGGCATCAGAA
GCGGGTAGATGAAATAGCGAAAGGAAACAGGCTAGCAGACCAAAGAGCTAAGTCAGCAGT
AAGAAGGCCCAAGGTCCCAAAACACTTGAGGCCCTCTGATTGGGAGGGCTACATAAG
GGAAATAAGCTCAGTATTCCCCTACAGAGATAGAATGGGCCACCTCTCGAGGTATACT
TTTCAACCTCAGGATGGTTACAATCAGAAGATTGCAAAGTACGCTTGCCAGCCTCCAGC
CAATGGAAGATTCTTAAATCCTCCACTGAGCCTTTCACTTAGGAAAGCATAAGACATCA
GTGCATCAAAGATTGTTCTCAGGAGAAAAATCTACTAAAAATGGTCAAATAGGTTGTTAA
TACTCGTGAAACCCTCTTAAAAATAATCCCTTTAACAGATGACTTCTTCCCCACCACAAT
CAAAGGA

TABLE 1
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Sequence 1874

ACGCGTCCGATGACCAGGCTGCCCCGCTCCTGGTTCTGCCCAAGTTCTCCCTGGAGACT
GAAGTCGACCTCAGGAAGCCCCTAGAGAACCTGGGAATGACCGACATGTTGACACAGTTT
CAGGCTGACTTCACGAGTCTTTCAGACCAAGAGCCTCTCCACGTCGCGCAGGCGCTGCAG
AAAGTGAAGATCGAGGTGAACGAGAGTGGCACGGTGGCCTCCTCATCCACAGCTGTCATA
GTCTCAGCCCCGCATGGCCCCCGAGGAGATCATCATGGACAGACCCTTCCTCTTTGTGGTC
CGGCACAACCCACAGGTGAGCCTGGAACCCATCACGTTCCACATCCTCCCACCCATTCT
TTCTCTCAGGAAGTCTCCCGACAGATGCAGACATCCCTCTATCCCTGAGAGGGGCTCTGG
GCAGGGAACCCATAACCCCTACCCTGCTTCCTGTCCCAAGAGGAGGC

Sequence 1875

AGTCGACCCACGCGTCCGCCCACGCGTCCGCTTCTTCTGGGCACTGACTGCCCTTCTGG
TCGCTTCAGCTGCTGCCTTCAGGGTCTTCTGCTGCTGTTGCCGCCACCACCATCTGTAC
CCACAGGGGAGTTAGGATCAGGCCTCCAGGTGGGAGCCCCAGGAGCAGAGGAAGAGGTGG
AAGAGTCCTCACCCTGCAAGAGCCACCAAGCCAGGCAGCAGGCACCACCCCTGGTCCAG
ACCCTAAGGCCTATCAGCTTCTATCAGCCCGCAGTGCCTGCCTGCTGGGCCTGTTGGCCG
CCACCAACGCGCTGACCAATGGCGTGCCTGCCGTGCAGAGCTTTTCTGCTTACCCT
ACGGGCGTCTGGCCTACCACCTGGCTGTGGTGCTGGGCAGTGCTGCCAATCCCTGGCCT
GCTTCTGGCCATGGGTGTGCTGTGCAGGTACACAAGGACCCCCAGCCCCTGTGCGGGTG
GAACTCA

Sequence 1876

TCGACCNCGCGTCCGGTCTTCGAGGTGGCCCTCGGGCCCCGAGCCGCTGGGTAAGGGTG
ATGCCTAGCCTGGCTTATTGCACCTTCCTTTGGCGGTTGGCTTGGNGCGAATCTTCATC
TTAGCACATTTCCCTCACCAGGTGCTGGCTGGCCTAATAACTGGCGCTGTCCTGGGCTGG
CTGATGACTCCCCGAGTGCCTATGGAGCGGGAGCTAAGCTTCTATGGGTTGACTGCACTG
GCCCTCATGCTAGGCACCAGCCTCATCTATTGGACCTCTTTACACTGGGCCTGGATCTT
TCTTGGTCCATCAGCCTAGCCTTCAAGTGGTGTGAGCGGCCTGAGTGGATACACGTGGAT
AGCCGGCCCTTTGCCTCCCTGAGCCGTGACTCAGGGGCTGCCCTGGGCCTGGGCATTGCC
TTGCACTCTCCCTGCTATGCCCAGGTGCCGTCCGGCACAGCTGGGGAA

Sequence 1877

ACCCCGCTTCGGCCCTTAAGAGACAATGATTGAGAAAGAGCCATGTGGCTTGGCTCTAGA
AACGTCACTTATTAGGACCATCAGATTTTAGATTAAGCTGCTATTGAATTAATAAAAT
CCCAATGAAGCAGAGTTATAGGGATAGATTTATAGCTGGCAGAGTGGTATCAAAGGAGAA
AAACAGTGAAAAAGCCAATTTCACTGGTTCGTTCAATCCAGCTTGTTGCTAATTAGTT
ACCCTTGTTTTAATGACAGAGAGTGGCTGGAATCTGTAGCTAGGGGAGGGGCAACACTGT
TAGATGTGAGGAAAGGAAGTGCCAAAAATGCCTGGACAGATGGCTTGTCCCAAGGCCAGG
ACACACACTTTAAATCCAACATTCACCTAAGCAAGTAATTCTTAAAGATCTTACAGAAA
CGCAGAGTCAATTCAGGTTTATAAAGGAAGGCTTNAGGGGAGAGAGGAAGGCCTGGGGGG
CCTGGACGAAAGAGGCCTAGGACCTGAAGAGACTCCAGCGAGTCTTCGGGAAGC

Sequence 1878

AGTCGACCACGCGTCCGCAGCATCGTCCGAGACTTCCAGACTCCCGGCCAGCCATCGAG
GACCTCAAGTACTGCCTGGAGAGGACGGACCAGAGGCAGCAGCTGCTCGTGCCCTCAAG
GCTGCCCTGGAGACTCGGCTCCTGCATCCAGGCGTCAACACGTGTGACATCATCACCTC
TATATCTCTGCCATCAAGGCGCTGCGCGTGCTGGACCCTTCATGGTCATCCTGGAGGTG
GCCTGTGAGCCTATCCGCCGCTACCTGAGGACGCGGGAGGACACAGTGCGGCAGATTGTG
GCTGGGCTGACGGGGGACTCGGACGGGACAGGGGACTGGGCTGTTGAAGCTGTCCAAGAC
CGACCCGGCGAGCCTGGAGACAGGCCAGGACAGTGAGGGATGACTCAGGCGAGCCAGAGG
ACCTGGGGTCCCGGACCCTGTGGATGCCCGATCAGGGGAAAGTCGAGCTCCAGCC

Sequence 1879

GTCCGCACAATTGAAAACTGGGAAAAATAATCTCGTGGTTCGGTTTGTTAGTTTGAGACG
CAGTCTCACTCTGTGCCCCAGGCTAGAGTACGGTGGCCCAATCTCAGCTCACTGCAACCT
CCAACCTCCAGGTTCAAGCAATTCTTGCCTCAGCCTCCCGGGGTAAGTGGGGATTAC

TABLE 1
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AGGCGCGCACCACCACGCCAGCTAATTTTTGTGTTTTAGTAGAGATGAGATTTTGCCA
TGTTGGCCAGGTTGGTCTTGAACCTCCTGACCTCAAGTGATCCACCCACCTCGGCCTCCCA
AAGTGCTGGGATTACAGGTGTGAGCCACCGTATCTGGCTCTCATTTTTTATATACAGA
TTGAATATCCCTAATTTGAAAACCTGAAATCTGAAATCTTCCAAAATCCAAAACTTTTG
AGCAGTTACATGATATTTGAATGAACTGCTCATAAGAA

Sequence 1880

GAGGAAACCAAAGTGCTCTGTATCCTCCAGTCTCCGCGCCTNCACCCAGCTCAGGAACCC
GCGAACCCTCTCTTGACCACTATGAGCCTCCCGTCCAGCCGCGCGGCCCGTGNCCGGGT
CCTTCGGGCTCCTTGTTGCGCGCTGNTCGCGCTGCTGCTCCTGCTTGACGCCGCCGGGG
CCCCTCGCCAGCTGCTGGGTCTGTCTGCTGTGCTGACAGAGCTGCGNTGCACNTTGT
TAACGCGTTTACGCTGAGAGTAAACCCCAAACCGATTGGTAAACTGCAGGTTGTTTCC
CCGACGGCCTCGCAGTGCTCCAAGGTGGGAAAGATGGTANGCTCTCCCTTGAAAGAACCG
GGTAAGCANAGTTTATGTCTGNNACCCCGGAANGCCCCCTTTTTCTTAAAGGAAAAGG
TGCATCCCAANNAAAAATTTGGGACCAGNTGGGGAACCAAGGAAAAAA

Sequence 1881

GCGTCCGCCCTGGCTCCTCCAGCAAGACCTCGTCTTGCTTGCTGCTCAGATGCTGGT
CATCTGGGCATGTCCCCAGTGTGGACTCTGGACTGGGAAGGGGGCAGGCCCTTTGGAC
CTGCAGTTGGCCTCAGCAGAAGGCCTTGCCCTGTGTATGTGACTCCATATCCCGGGAGCA
GTTGACCTTTGCCAAACACTTTACAGTTCTGGAGGAGGAGGTAAACATAGATGCCTGGGCC
TGATGGTGGGGCCATACCCATGTGTGCGCTCTCACTCTGGCAGCCTCAGAGGCCCTTG
TGCTGGCTCCCATCTCCCTCCCATTTGCAGACCAGGAAGGAAGAGCAAGCTGTACAAAGG
GAAGCAGAGCCTGGGGTGGGGTGTGAGCAGGGTGACCCCTCATCTGAAAGGCCCAAACCA
GGGGGGAAGCACCAGCCTTAGTGACGCCCTCTGACCCACCTTAGAATGGAAAGCCTT
CACCTGCAGCCCAGGCCTTCTCCCCG

Sequence 1882

AGTCGCCCCGCGTCCGGTGATTCCAGGGTGCAGAAGGGATTTCATATCCCAGAACGCTTT
AAGTGACACCTGCAGGATAAAGAGATACCGGTTACATTATTAATGATTCTAGGGATT
ACTGGGGGATATTTTTGTTGCTTTACTTTTCATGGTTAGAGCTACAAAGAACAAGTGATT
TTTTTTTTTTCTCCCTTCCCCATTGAGAAACATTATACATTGGGCCATTTTTCTTTCTC
CCAAAGAAGATTGATGGATAGTCAGACTGAACTGTGTGCAACAGGAAAAGTCAAAAGGGA
AAAGGCAGCTGATGAGGTTGATGTTACATGTTCTACATCATGCAGAGTAGCTTGAAATC
TAGTCTGGAGAAAACCTGGATCAAGATTCTAGCCCACTGGAGTTGCAAGGAATGAGAGGCA
AAAATTCTAAAGATTGGGTTATATTTCAACTTGGGGGACAGAGAGAAATGGAGAGCAG
GAATTACAGTTCCAACAAACATCATGATAGTC

Sequence 1883

CCACGCGTCCGACTAGTTCTAGATCGCGAGCGGCGCCCTTTTTNTTTTTNNCACGCTT
AATTCACTTTATTTTTCTTGNATAAAAACCTATGTTGTAGNCACAGNTGGGGCCTGAGT
CCGNTGCACGGAGACTCTGGTGTGGGTCTTGACGAGGTGGTCAAGAGNAACCTCCTNGATA
GGGAGACTTGGGTGAATACANTNTCCTTCANAGGTCCGGGGNGTTCATGGTATGCTGTA
NGGTCCTTAAAAAATGGG

Sequence 1884

GTCCGAAAAAATGATAATGTGCATAAAATTCAACCCAGCTTCAAAGTCCAGTCAAATA
TCAGAAATCATGAGGTCCAATGGATTTGTTTAGCAAATACCGAAACAATAGTTATTGAC
CACAGTATACCAATGGAAGAGACCAGCACCTGGGCGTGGACCCAACAGAGCATTATTT
GAGAATGGCAGTGAGTTTCCCTCAGAGCTGGAGGACGGGGACGACCCAGCAGCCTACGTC
ACCAACCTGTCTATTACCACTGGTCCCCTTCGAGACAGACATTTGGGACTGAACCTCT
CTATCAGGCCTCCCCCGCCTCAAGCTGTTCACTGCC

Sequence 1885

CGCGTCCGCACAACAAGACACTCCAATTGTGATTTGAGTTGAGGATCTCTGCCTGCCTTC
CTGCCGTCTTCTTCTTCCCCGATCCATGCTACTTTTAGGGGCTGCGGAGAGCAGCAGC
AGAGCTGAGTAATGATACAGGGCACCACGGAGAGAAAAGTAGAACCATTTCACTCCTGGGA

TABLE 1
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AGATGGGGTATTTCCCACTTCCAGCAACGAAATAACAAATGAAAAGTTGCATACTTATTG
ATGTATTGTATGAGCCAGTAGCATTATGTACAAAACAGAAGTCAATGCAACAGTATGT
ATGTGTGCCTGTGTGTGTATAAAAATAACCATTGAAGCTAACTTGCTAATGTACTTAGGC
AAGCCACTTCCCATCTCTGGGCCTCGTCTTTCCTCCCTCTAAATCAAAGAGCTGAATTA
TGTGATCCTTGAGGTCTCTTCCACTTATAATACCAACTGTCTTGTGCACTGGCAAATTA
TATTGGCCTCTCCTTATGTGGTGGGTTTTTTGGGAGGGNCATAGTTNCTTATACACAGG
ACACCTGCATNATCNAAGGGCTTTTTTTCTAAAAAAAAAAAAATG

Sequence 1886

CGTCCGCTCCTGAGTAGCTGGGATGACAGGCGTGACCTGGCAGCTTTTTCAAAGTGTTG
ATGGTAATCTGAGGCAATCTAAGGGAGTCATTTTTAAGTGACTTTATACAGAAAGATTG
GTAAGAGCCAAGGGTAGAAGTGGCATAAATGTCTAAAGCAGGGAAGTGACAGGGACTTT
CATTGTTCTTGGCTGAGGAGAAGCGGGAGTGGCTGATGGAAGCACCTAAATGATGCCTTT
GTCTGTGGGAAGGCAAATGATGCCCCAGAGCTCTAACCAGGTTTTCAGCCGCGGAAA
AACAGGAAAGTTGGGAAGCGGGGGTAGGACTACACTGAATCATTAACAGTGCTGTAACT
ACCCATGTGGCCATTAACAATGGACCTTTGGGGGAGTTTTCTAAACGATCACTCTGGA

Sequence 1887

CGTCAAACACCCGAGGCTGTGCGATTTTCATCATCAAAGAAATCAAGACGATAAGGGCAGC
TCACTCCCCATCGGGAAGAGATCCAGCAACGCGCGCGCTGGCGTATTCGCCGTGCTCC
ATCACCTGGTCAACATGGCGATAACCGGCGCTGTCCAGTTGGGTTCTAATGCATCTCGT
GACAGGCGCTGACCTTTTTTCATCACCAGCGCATGACCGTGGAGAAAACCTGTGTGGGCAA
ACGCGCTGCATAAGCGTATTCACCGGAACAATCAGTACGCCACGCTGCATCGTGGTAGC
TGGTAAAGGGTGGAAAGGCGCGAGGAGATAATGTCCTGATGAGGCGAAAAACCTGTGCTAG
GGAAGAGTTTCCAGTCCGCCAGATTCATCACCATTGATCGGTAACTGGCTGATTTCA
TCATGCAAACGCAGAGCATTTTGCATATCTGGTGCAATGAGTACCACCGGACCGGCGTGA
CGTTCGGCA

Sequence 1888

CGCGTCCGTTTTATTTTTATGCCCTTTTTGTGGATAAGATTCTTTAGATAAAATCTAAAG
AATTTAAGTGACTTTCTCCAGGTCATGAAGATTCAATGGGTAGAATTGAATCAGAATTG
AAATGTTCCAGATTCATATTCTTGTGTGTGTTGATAAAATTCATGGCTTCCAAAGTAAC
TGAACACTTCTTTGGGCCCTTGGAGGGAAAATCCATATTTTACTAATTACACTTTTTT
TTTTAGACATCTGGCAGTTCTTTGAACCTAAACATATTCTCATGGCCATAGTTCCAAATT
AAGCCCAGCGCAGTTGCTAAAAATCTTGCTGCACTGTTGAATACTAATAATGCAACATTT
ATTGGATGTTTTGCATTTTATGACCTTCATGATTCATTTATAAGTCTTTGTAAGTGCT
TAAGTGACCCCTCACTAGTGAAAATAATAAATGTTCTATATCATTTATTATTATTGTG
TATTCTCTACATGATATATTTTTT

Sequence 1889

CCGCGTCCGGGAGGATGGACGTAAGTGTCTGAGTGCTCCGCGCGGCTGCTGCAGCAGG
AAGAAGAGATTAAATCTCTGACTGCTGAAATTGACCCGGTTGAAAACTGTGGCTGTTTA
GGAGCTTCTCAAATTTGGAGCAGTTACAAGAAGAAAATTTAAAAATAAAGTATCGACTGA
ATATTCTTCGAAAGAGTCTTCAGGCAGAAAGGAACAAACCACTAAAAATATGATTAACA
TTATTAGCCGCTACAAGAGGTCTTTGGTCATGCAATTAAGGCTGCATATCCAGATTTGG
AAAATCCTCCTCTGCTAGTGACACCAAGTCAGCAGGCCAAGTTTGGGGACTATCAGTGTA
ATAGTGCTATGGGTATTTCTCAGATGCTCAAAACCAAGGAACAGAAAGTTAATCCAAGAG
AAATTGCTGAAAACATTACCAAACACCTCCCAGACAATGAATGTATTGAAAAAGTTGAAA
TTGCTGGTCTGGTTTTATTAATGTCCACTTAAGAAAGGA

Sequence 1890

CGCCCCGCGTCCGCTAATTATAAGCTTTACAAGTATTTATTTTATAAGGCTTAGACAGAA
TTATTGGAGTTTTAAATTAAGTGATTGAAAAAGAAAGGATGGTATGTGTATGAAATGTT
AAGATCCTACGCAACACTGCTATTTTTTCTTTAATATTTGTGCTGCATAACAAAAGCC
ACTAGACTGTTACTGTCTGTCTGTCCATGTGTTAACAGCATTTCTTAATGATGTATATA
TGGAGTGGTCTTCAATCATAGTGAAGAATTTAAAGAGAAAGTCAATTGTATTGGCATT

TABLE 1
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TAATAAGAACAAAATTAGTTCGTCTAAGGGGACTGGCTGGCCACATATTTGTTCCTTGCC
CATATGCTTTCTACTTCTTGTCTTATTATGAAATTATGAATTTGAAGCCTCTGAAATGG
TGATCAGTTTTCAACATCTTCAAAAACAAAATTACTA

Sequence 1891

GCGTCCGCGGCTGCTGTGTGTGAGCAGTGGACACGTGAGGGGGGGGTGGGTGAGAGAGAC
AGGCAGCTCGGATTCAACTACCTTAGATAATATTTCTGAAAACCTACCAGCCAGAGGGTA
GGGCACAAAGATGGATGTAATGCACTTTGGGAGGCCAAGGCGGGAGGATTGCTTTGAGCC
CAGGAGTTCAAGACCAGCCTGGGCAACATACCAAGACCCCGTCTCTTTAAAAATATATA
TATTTTAAATATACTTAAATATATATTTCTAATATCTTTAAATATATATATATATTTTAA
AGACCAATTTATGGGAGAATTGCACACAGATGTGAAATGAATGTAATCTAATAGAAGCCT
AATCAGCCCCCATGTTCTCCACTGAAAAATCCTCTTTTTTGGGGGGTTTTCTTTCTTTCT
TTTTTGAATTTGCACTGGACGNGGACCGTCAGCCATGTNCAAGGATCCCCAGGGGGGGG
GNNGTCAAAATGGCTATTGGAAAATTGGGGTGGAAATGNATGCCTTTTTCACTTTTGA
TAAATAAAACATGTAAAAAAATGNTTCAAAAAAATTAATTAATTAATTAATTC
NNAAAAAAAAAAAAAA

Sequence 1892

AGAGGATCCCAGGGTTTCCAGGGGGCCAAAGGAGACAAAGGTTCAAAGGGTGAGGTGGG
TTTCCCAGGATTAGCCGGGAGCCAGGAATTCCTGGATCCAAAGGAGAGCAAGGATTCAT
GGGTCTCCGGGGCCCCAGGGACAGCCCGGGGTACCGGGATCCCAGGCCATGCCACGG
AGGGGCCCAAAGGAGACCGCGGACCTCANGGCCAGCCTGGCCTGCCAGGACTTCCGGGAC
CCATGGGGCCTCCAGGGCTTCTGGGATTGATGGAGTTAAAGGTGACAAAGGAAATCCA

Sequence 1893

TCCGCCCCGCGTCCGCTTTTTCCNAACAAGGAGCATCCAAAGACACAGTGACTTGAGCTA
TAGATAGTAAAAATCATACGAGAGTTGAACTGAGTCAGGTTTAGGAAGCAAGTTTGGTTG
CATCAATTAAGCAGGCTCTTTTCAATTGACTGATGCTGGGGCCTTCAGTTTTATTCTCAG
TATAGATTGCCAGTATTGTTAAGAGTATCCAAAGGCCTTTCTAGATGGAGACAGAATAAC
TGACTTGAACATACAGTGTGCCTGTAAGTGTCCAGGCTCAGAGCTGGTGAAAACCCCTTCT
GTTGGGCGTGTGCAGGGTTAACTCCTGAAGTAACTTGTGAGGACTTCAGTGCTTGCTGG
TGTCTGGGCAGCACCATGAATGCCTTTACCAAGACATGCCAAGTTGGATCCCCGAATG
AAGCAAGAGTGGCTTGTGGGTGTGACCCTTGCTCCCTGCTACACAGAAGCATCGCAAGGG
CTGCCTGTGTNGGTTTCCAGATGAAGGGTCTTGGGTCCCGGAAGCTTTGTGGTTGAGAGC
TCAAGTGGGACC

Sequence 1894

GTCACCACGCGTCCGCGGACGCGTGGGCGCACGCCGGCGGCGGAGGCCGCGCTCTGCGC
TTCGGGCGCGCCCCCTCCCCCACCCTGCTCACACCGGCACTTACTTCGGCTGTCTCCGC
TGCCCTCCAGCGGAGACGCAGCTCCTCAGGCGCCCGGCGGTATTTGTTGGGTGCGCGGCG
TCAGGGATTGCGAGTGGCCTGTGGTCCGCGTGTCCGGCCACTGGTGCGCCCCCGCGGCA
GGCAGAGCTCACGCTCCTGTCCCCCGGCTGGTCCGGGGTCTGGGCGCCGCGTCGACGGCG
GCTCCGAGGACGCGCAGACCGGGCCGACGCCATGCC

Sequence 1895

NCCCCGCGTCCGATTTAAATGCCCTAAATTTTAAATTCATACCTTTCCATGATTCAAAAT
TCAAAAGATCCCATGGGAGATGGTTGGAAAATCTCCACTTCATCCTCCAAGCCATTCAAG
TTTCCTTTCCAGAAGCAACTGCTACTGCCTTTCAATTCATATGTTCTTCTAAAGATAGTCT
ACATTTGGAATGTATGTTAAAAGCACGATTTTTTAAATTTTTTCTAAATAGTAACA
CATTGTATGTCTGCTGTGTACTTTGCTATTTTTATTTATTTAGTGTTCTTATATAGCA
GATGGAATGAATTTGAAGTTCAGGGCTGAGGATCCATGCCTTCTTTGTTTCTAAGTTA
TCTTTCCCATAGCTTTTCATTATCTTTC

Sequence 1896

CGACCCACGCGTCCGCCCNGCGTCCGAGGGGCAACAGCAGAGCCTACAGCAGGGGGCACA
CTCCACCGGNTCCAGCCGCCTGCACGACCTCTACTGGCAGGCCATGAAAACCTGGGAGT

TABLE 1
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CCAGCGCCCCAAGTTGGAGAAGAAGGATGCCAAGGAGATCCCCAGTGCCACCCAGAGCCC
CATCAGTAAGAAGCGGAAGAAAAAGGGATTCTTGCCAGAGACGAAGAAGCGCAAGAAACG
CAAGTCAGAGGATGGCACGCCAGCGGAGGATGGCACACCTGCAGCCACCGGCGGGAGCCA
GCCCCCAGCATGGGCAGGAAGAAGAGGAACAGGACAAAGGCTAAGGTCCCAGCCCAGGC
AAACGGGACGCCAACCACCAAGAGTCCAGCCCCTGGCGCCCCAC

Sequence 1897

ATTATATACTTCTGAATGGCACCTTACTTTTTGGAAACAAATCTTCTGTTATTTACAAAA
TAATAATTTTTAAAAACATAAAAAAAAAATCCAAAGCTGCTCTCGATAATAGTCAACAT
TTGCATATATATGGAATTTCTTACTTTTTCTCCAACTCTATTTAATAAACTTATTT
TAATGTTTGTGTATTTTCATGTATAATTGTGATCTCAATTATAAAAGTTTAATTCAGCATG
TCTTTGAGCCAATATAATTACTGCACACCCACTAAATTGGGATCAGCCATTATAAATAAT
GTAGTTTTAGAATAATAAACATGACACATATATATATATAAATATATAGTATATATT
GGCACATCGGTGAAAGTTTAATATGTGCGGAAGGTTTTTTTCTTCTTCAAGTTAAAAA
TTATTTTTTGCATATGTAATTTTGGTGTTCAGGCTGGTCGAGAGGATAAAAAATGGAT
TTAAATCTGGGTACCGGATGGATCTTTCNGGNGGTTAAGAAACACAGGGGNTGNGGACC
TTCCTTTT

Sequence 1898

CCGCGTCCGAATATAGTATTTTTTAATTTTTGTGGGGATGGATTCTCAAATACTTGTGAT
TTTAAAAGATTCTAAAGCTAAACACAACCTGATTTTAAAAAGAATGATTCTCCTTACAC
AATTATAAATATTTGCAGTAAATATTTTCTTATAATACTGTTTTGACCCCATTTAAAAA
GTATTAGATTATATTCCTTTGATCCAATGAAAACTGAACCTTATAAATGGTTAGCTGAAA
GTAGACCTTATTCCTTGTCTTCTTTAGAAGAGTAAAGATTTGTCCTAGGGAAGATGGCTG
ACTTCGGTTCCCAACATGCCGTATGCATTTAGACTGTAGCTCCTCAGCCCTGTGGACACA
AAATTTGGACAGCTTATTAGGNTACCGTTAGCAATGCTGGACCGGTTTCTTCAACACTAA
AGANTTTCACCGTTGNAACAGATTTCTCGGTTCTGCTNATGGGGNCTGGTAAAAATGGT

Sequence 1899

GCCCTGGAGGCTACTTGTAAATCCTTAGAAGAAAAGCTGGATCTGGTCACGAACAAGCAG
CACAGCCCCATCCAGTTCCCATGGTGGCCGGCTCCCCTCTCGGGGCAACCCAGACGTGC
AACAAAGTGCGATGCGCTGTGCCTGGGCGTCCGCAGAACACCATTTGTTGTAAGGTGCCG
GGCCAAGAAGACAGNCAACACGAGGACGGGGAGAGCGGCTCGGAGGCCAGCGACTGTGT
TCCAGCTGTGGGCAGGCGGGCAGTCAGAGCATNGGGAGCAACGTCACGCTCATCACCTG
AACTCGAAGAGGACTACCCCAATGGCACCTGGCTGGGCGACGAGAACAACCCC

Sequence 1900

NCCACGCGTCCGCCCCGCGTCCGGGCCCCGGCGCGCCTGCTCTGGGCTCTCCGCGTGCCGC
ATCGCTTTCTTTCTTCTCTGAGCAGCTATGGCGGCGGCGAAGACCCTGAACCCCAAG
GCCAAGGTGGCCGGAGCGCAGGCGGCGCTGGCGTTCAACATTAGCGGGGCGCGGGGTCTG
CAGGACGTGCTGAGGACCAACCTGGGGCCCCAAAGGGACCATAAAGATGGCCTTCATCCCA
GAATAATCACTGAAGGATTTGAAGCTGTGAAGGAAAAGCCCTTCATTTTTTGAAGAAGT
CAAAGTAAGCAGAGAGATGGACAAGGAAAC

Sequence 1901

CCACGCGTCCGCCCCGCGTCCGAAACATGAGGTTCTCTCTACTGGTCCTCTTAAGTGTGG
TGTTGAGGCTTATATTTGTGTAATTTTTGGTGGGTGAAAGGAATTTGCTAAGTAAATCT
CTTCTGTGTTTGAAGTGAAGTCTGTATTGTAAGTATGTTTAAAGTAATTGTTCCAGAGAC
AAATATTTCTAGACACTTTTTCTTTACAAACAAAAGCATTCCGAGGGAGGGGGATGGTGA
CTGAGATGAGAGGGGAGAGCTGAACAGA

Sequence 1902

GTCGCCCCGCTCCGCCCTCCCTGGCAAATAATATAATAACCCGTGAATTTTCAGGAATT
TAAAAATTANGCTTTTTTCCACTTAAAGGAGAAAAATATTTGGGACTAGCAGCAGAGGCA
GTAAGAGATGTGAACCTTGGTGAAGTCTGATACAGTGAGAAGAGATTATACTCATGAAAG
AGAATGTTAGTGTTACAGAGAAGCAGCCGATAGCAAATCGACTGTAGAGACTTGGCGGCG
GTGGCATTGCCCCAGGTCGTCAGCAGTGTGGTATTATCTATGAGAACTTGAGCGACAGAG

TABLE 1
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TATTTCTTGATGAATTTATAGATCATTTGAGATGTTGAGTTACTTTAGTTTAGTTTTGTT
TTGTTTTTCAAATAAGTAGAGACTATTTGTAACCAACGAGGAAAGGGAAATGAAATGGG
GCGTGTTTGATAGCAATAAATTTGGTTTCTTTTTAAAGAATTCTAAAAAGGGTCTGAGAC
CCTGNTAGCATTAAATTTTTGAGTGCCCTTCTTTTTNCCCTTCCCCTCCCTTTTTNTT
TTCTCT

Sequence 1903

GCGTCCGCCCCGCGTCCGGGAAACCCCTTCGATGACCTCCAGAGCCTCCCAAACGACGT
GATCTCTTCCCTGAAGAACAGGCTGAAAAAGGTCTCCACAACCACTGGGGATGGTGTGGC
CAGAGCGTTCCCTCAAGGCCAGGCTGCTTTCTTCGGTAGCTACCGAAACGCTCTGAAAAT
CGAGCCGGAGGAGCCGATCACTTTCTGTGAGGAAGCCTTCGTGTCCCACTACCGCTCCGG
AGCCATGAGGCAGTTCTGCAGAACGCCACACAGCTGCAGCTCTTCAAGCAGTTTATTGA
TGGTCGATTAGATCTTCTCAATTCGGCGAAGGTTTCAGTGATGTTTTGAAGAGGAAAT
CAACATGGGCGAGTACGCTGGCAGTGACAACTGTACCATCAGTGGCTCTCCACTGTCCG
GAAAGGGAAGTGGAGCAATTCTGAATACTGTAAAGACCAAAGCAA

Sequence 1904

CGTACGGGGTGCGGTTGGCGGCGGCGGCTGGGCCGGGGGCTGCCGGCTGCGCTCGGGCCG
TGCGCGGCGGCGGTGCGGNACGCCATGGACTTCAACATGAAGAAGCTGGCGTCGGACGC
GGGCATCTTCTTCACCNCGCGGNGCAGTTNACGGAGGAGAAATTTGGCCAGNCTGAGAA
GACTGAGCTTGATGCCACTTTGAAACCTTCTGGCCCGGGCAGACAGNACCAAGAACTG
GACAGAGAAGATCTTGAGGCAGACAGAGGTTCTGCTGNAGCCCAACCCAGTGCCACGAG
TGGAGGAGTTCCTGTATGAGAAGCTGGACAGGAAGGNCCCCTCAAGGGTCACCAACGG

Sequence 1905

CNCGCGTCCGGTGATCTTGCCCATTTGATTTCTAAATGTATTAACCTACTTAAATTAATCC
TGAATCTTTTCCAGGCTTAAGTGGGATAATGTTTTATTGTAGATGCATATTTCTGGCT
CTACCCAGTCTTTCTTTGAAGACTTTATCATCCTATTTTCTGAATCCAGTGGCTGACTTT
AATCTTCTCTGGAGGAAGTAGATAATTTCTAGACTAATGCTTACACTCATGATCCAGATT
GTAATTTCTGAATCCTTCTTCCAAATAGAATCAAAACAAGAAAGGGGAAAGCCTCTCAA
AGCACTGTGCGTTAATAATGAAACACTCTTTTTTTCTAATCCAAGGAGGGTTTCATACT
TTTTCTTAGTTTCTTCCCTCTTCCCTTCTGATCAATAATTGTAATAGGGAAATTTGCAA
TTGTGCCAATACTCAGATTCAATACTGAATCACTTTCTTGCATTGGAATTCAAATCCAA
GGTTAACTAGCTGTATGTTTCCAAACAATCTTATTGGATATGGATTTTCTTAGGGG
GAAGGTTCCAGAAATGATT

Sequence 1906

GANCAGGCTCAAGAGCAACATGGAGGTCTGCACCTAATCGCTCCTCTCCGGGGGCGGCCA
TACCGAGGAGGCGTCTTCCGTGCAGGCAGGCTCTCCTGGGGACCTCAGAGATTCTCTC
CAGCGGCAGCGGAAAACGGACAATGGGTGGATTCCGGTCCAGATTCTGGTAGGAGGGAGT
TTGGGATCGAGATCTGGAAGAAAGCACTAGACTGGAAGAGGACGCGATGGAGTCGGAGCC
GCTGGCGGGGACAAAAACAGAGGCCGGGGAAGGCGCGGTGGGAGGCAAGGCACGGATG
GACTTTACCTGCGCACGCGTGCAGCCATCTCCGCGCACAGTGGTGGCCACCGCGACTGG
TGCTGAAGTGTTGGCCGCGTGCCGGGCGCTCCGCTGGGACCCGGGTTGCTGGCCCTGAGT
CTCAGCTTTCTCATCTGTACGGTTGGGACAAGTACAGTAACCCTCTCCCGTCAAGACGGG
CC

Sequence 1907

GTCGACCNCGCGTCCGAACATCGTCAACTACGGCATCCAGCCCACCGTGACATCGACGA
GTGCATGTTGTTCCGGTCCGAGATTTGCAAGGAGGGCAAGTGCCTGAACACGCAGCCTGG
CTACGAGTGCTACTGCAAGCAGGGCTTCTACTACGACGGGAACCTGCTGGAATGCGTGGA
CGTGACGAGTGCTTGGACGAGTCCAAGTCCGGGAACGGAGTGTGTGAGAACACGCGCGG
CGGCTACCGGCTGTCCTGCACGCCCCCTGCCGAGTACAGTCCCGCGCAGCGCCAGTGCTC
GAGCCCGGAAGAGATGGGACGTGGACGAGTGCCAGGACCCGGCAGCCTGCCGCCCTGGCC
GCTGCGTCAACCTGCCGGGCTCCTACCGTNGAAGTGTCGCCCGCCTTGGGTGCCCGGGC
CCTCCGGCCGNGATTGCCAGCTCCCGAGAGCCCGGCCGAGCGTGCCCCGGAGCGGGGCCGA

TABLE 1
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ACGTGTGCTGGAACCACGCGGAAGAGGACGGNATGTGCCCTTGCCCCCTGGCCCCGGGCC
Sequence 1908
ACCACGCGTCCGGGCGGCCCCGGCCAGGCCCCCGGCACTTCCTCGTCCTCGGCCCGGGTGC
CCTGCCCCCGTCCAGGAGCCCTAGGAGTGCTACGGGGGGCCGGAGCCTTGCCCCGGGCCGC
TGCCCCGTCCCTGGATTGCGGGCTGGACGCAGCAAGCAGGNGCGCTGTGTCCCCAAGCTC
CCCGTCCTCGGGGGAGCTTTTGAAGAGTCCAGATGGAAGCGACCAGGCTCCGGCAGAA
GGCAGAGGAGCTAGTGAAGGACAACGAGCTGCTCCCACCACCTTNTCCCTCCTTGGGCTC
CTTCGACCCCTGGCTGANCTCACAGGAAAGGACTCAAATGTCACAGCATCTCCACAGN
CCCTGCATGCC

Sequence 1909

ACGCGTCCGGAAGGGTGTTACATGTGTCTCTTCAATACCTTTGGTTTTGGGAAGATCTCA
GGAACGGCCTGCCTCACCCTCTATGTACAGCCCATAGTATCCCTTCACTACAAATCTCT
GAAGACCACCTAAATATCACTTGCTCTGCCACTGCCCGCCAGCCCCCATGGTCTTCTGG
AAGGTCCCTCGGTGAGGGATTGAAAATAGTACAGTGAAGTCTGTCTACCCAAATGGGACC
ACGTCTGTTACCAGCATCCTCCATATCAAAGACCCTAAGAATCAGGTGGGGAAAGGAGGTG
ATCTGCCAGGTGCTGCACCTGGGGACTGTGACCGACTTTAAGCAAACCGTCAACAAAGGC
TATTGGTTTTCAGTCCGCTATTGCTAAGCATTGTTCCCTGGTAATTCTTCTCGTCTA
ATCTCAATCTTACTGTACTGGGAAACGTACCCGGAATCAGGACCGAGAGCCCTAAATAAG
TCACACAGCACCCCTTGAAGGGGATTCTGGNCTACTTGGATTTGGCACAAGAGAAAAAG
CAGGAGGGAAAGG

Sequence 1910

GCGTCCGCTAGTTCTAGATCGCGAGCGGCTGCCCTTTTTCTTTCTTTTTTTTTTTTT
TGAGACACAGTCTCACTCTGTACACCAGGCTAGAGTGCAGTGGCACGATCTCAGCTCACTG
CAACCTCTGCCTCCAGGTTCAAGTAATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGAC
TACAGGCACGTGCCACCACGCCAGCTAATTTTTGTATTTTAGCAGAGATGGGGTTTCA
CCACATTGGCCAGGATGGTCTCGATCTCAACCTCGTGATCCACCCACCTCGGTCTCCCAA
AGCGCTGGGATTACAGGCGTGAGCCACCGCGCCAAGCCAAGGTCTGCATTTTCTTTAGA
ACTCAGAACACCCAATAGTCTAGGCCCCCATCCTCGCATGGCAGCAAGCTAAATAAGCA
TNTTCCCACTGCGAGTTGGG

Sequence 1911

GTCCGCTGAGAATGGATAATCTCACTGCAGGTATTCCATAATAGGCTTGGATTAACCA
GGGACAATGGGCAGCAATAGGCCATAGGTTAAGCAGCAGCACTAGTCACCACTGGACTG
TCTTCTTCTCCCCTTCCCATATCCCACATTCTCCTAAACATGATGTACGTGTAGCAACA
GTCTTTTAAAGTCAGATGGTCAGACTAATTATTTTACAATTTAAGTGTAAGTGATGTAC
ATGAATGGACTCTGTGAATCGGAAAACCTTACGTAAACAGCAGAGAATACGTATGTTATG
GAATAACCTGAGTTGAAGGTACAATTTTTTTCCAGCTCTTTTATTCTTTAACTGCTTA
ACAAAAGAAAGAGTCTCCAAAGTTTAAAAAACCTTTGAAAAATATACAGCTTGATATTAT
TTACATAAAATATGAATCCAGGTTCCAATATCAAACAAACATTGCTATGTCAGAAACACA
GTGGAAGGCAGGAACGTAACCTCACTGCCTTTTAGAT

Sequence 1912

CCCGCGTCCGCTCTTTTCTTCTCTNTAAAGTGAATTATTCCTTTTTTTGTTTTATGTAA
CGTGATATATTCTTAGTTTTCTTGAAATCATTGTAATGTTAACTTTGTTGTTTCAAAT
ATCTTGGTGATTGCTTCATTATCTCTTCAACAAAAAACCTTTAATTTTGCCATTGAAA
CTGTAGAACTATGCCATGCTTTTATTAGAAGCAGTGCTCTGTGTTAACAACAAGATGGT
GTAATTAGAATTGGGATGTGGATATTTACTGTATGACAACACATTTACAGTTCTGTAATG
CAAGGATGCAGTTTAAAAATGTGAAGTAGTGATGGTTTTTGAAATAAGCTTTAAATATA
GGGGATCTTGAAGGCTCCCTGGGGTAACATTTTTATACTTAGATAAAATGGCTAGTCAT
ATCTGTGTGGTTTTGNAAAGGTTATTTTTTAATATTTAAGATTACAATTTACAAATGT
AGAAATGAGCCCAACTATTTAAATTTTAAACAGTAAAAACAA

Sequence 1913

CGACCCACGCGTCCGCTTTGAAGCAGGAAAAAGACACGTCTCTAGAGCAACATGGAAAGGA

TABLE 1
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TCCAGTATTTGTTTTTCAGGCCAAAAGCAAGCCTCCAAAAGCCCCTTGGTTCTTCTCTGTGT
GTCTCGCCCCCTTCTGCCTTGTACACCAGACTGCCGGCAAGCAAGCGGGGAGGTGGCGAAC
AGCTGGGATCCTCCAGTGAAAAGTTTGCTCAGCGCGAGAGATGTCAAGAGGCTGGGATTG
TCGCCTATCGGGAGGTGGGGAGCTCTCTCACTCACACTTCCTGGGAAATGAAGGAGAACT
AATAGGCAGCCCCGATTTGCAGCCAGCCAACCTGGGTGGTATTCTTGAAGTGAAGCGCT
CATAATCCCTTCTGGGGCCAGAGCCGGTTTTACAAGCTGCAGGATTTGGGTGGCCTGCC
TGCTCTTTGGGAGCGGGCTTGGGAAGCTGAAGAAATTGAATCAGGACCTCAGGCCCTTTA
CAGACTCCC

Sequence 1914

CGCGTCCGCCCCGCGTCCGCTCAGAAACCCCTGCCCTTTCCCTTCAGAAAACGATGGCAG
GCATTCCTCTGAGTTTACAAGCAGAGACTCACTCCAACCCAACTAGCTGGGAGTTCAGA
ACCATGGTGGAAATAAGAAATGTGCATCTGGTCTCTTCTGTTGTTTTATTTTATATCAG
ATTAAATTTCTTTACCATGTTGGCTAAGTCTAAATATTAGAGATGAGGCTGTGCCTACTC
CCTGGCCAGCTCTGCTGATAGCCTATGATGGGTTCCAATGGGAAATGACTCTTTACTATT
AAAAGACAAGGAAAGCTCTGACTTCGTACTTCTCTGATGAATGGCAATGTAAATGAACAA
GGCTCCATGTGACTGGAGCATGGAAGTGAATGCTACTTTCTTAATTTAATCTGCCCTGTC
CTACCTGCTCCTCTGATTGTTAGCCATCACATAACTTATTGAATGCTTGCCATGTGCCAG
GCACTGTGCTGAGTGCCATACATACATTTTCATTTAATTATCCAATAATCCTACTTACTA

Sequence 1915

CCGCGTCCGATTCTNTAACATCTCTGTGAGGAAGGAATTTTTATCCTTATTTTACAGATG
AGGAAGCTGTTTGGAGATAATTTAAGTGACTTGCCTGGGGAATCTAGCCAGTAGTAGAT
ACTGATTAATCAGGTGCTGACATCTGCTCTGCTTTGTGTATGTAATTCAGCAGTGCTTCA
AAGATCCAAGAAGCTGTAGCAGATCTCAATACACTCTCCTATAAAATTAGTGAATAATCA
CCATGACAAAATTGGTATGGCGGAACAGTCATTATACATTATTTAGACTCATTCTTCTT
CCAGTGCCCTTATGATTATTTCTACCTTTACCATTGG

Sequence 1916

CCNCGCGTCCGCCCCGCGTCCGCCCCGCGTCCGATATTGCTTCAGAAAACCTGAATGTGTA
TGTCGGTCATATTGCCTTTATAACCATGCTAATATCTATGCTTTATACATACTCAAACCT
GCCTTGCTTAAAAAATACATACTACATACTTAAATCAGGAATTCTAGCCATCTCACAG
AATACCAACTAAACTAAGTGCATTGAGATCTGAGATTGGTAAACCCAGATTCATTTACC
ACAGCTGTAATTAAGTTTTAGAACTATTCTCTTTTGGGGAATCCATTGAAGTTAAT
TTCTGTTATCTTATTAGAAGAAAATGATGTTGATATGTGTTTCAGATTTTCCATTTGAAA
TCTTATAATTAATTTGATTTATTTACTGTAAGTAGGAGGTATNAATGACACTCTTAAATT
GGAAGGAGGGGTGTTTTAGTGTCTGTNTTAGGTCAAATTAGTGATTCTATTTTATCAA
AAGTTTTATCCTGAAGTTTCAGGACCACTCTTCTTAATNAACCTGTTAATGGGAAGCGA
GCCTTATGAACATTTAAAAAT

Sequence 1917

CGCGTCCGCAGCAGTAATCCTTTAATAACTGGCACGAGCACTTTATTCTTCTGGTGAGCT
CCCTGAATATTTATTTTCTGATTATAAATTTTCTATATTAGTAGCATTTTTTAATTATT
ACTTCTTCACTATAGAGCATTTACTTTTAGTCTCTAGATGTATTTTTGGAATGCTGTAC
TTGGCATAACATAGATTAAATCATAATGCATGACTAAAACTCCTTGGATTTATTTCCC
ATTTTAAATTTTTAGCGGTAAGTTCAGATTTATAATCTTTCTCTAGACTTCCATGGTCT
GAATGTTGCCTGCTGAAGTAGCAACCTAAAAAGTATCCCCTGCTTATGCTTCTCCAGTTG
GCCCTCCATGTCCATAGGCTTCGCATCTGTGATTAGCCCACTGTGGGTCAAAAATATTT
GGGGAAAA

Sequence 1918

GCCCCGCTCCGCATCCCTTGTATACCATCGTAGACTTCATACTGGAGAGAAACCTTACAA
ATGTGAAGAATGTGATGAAGCTTTCAGTTTCAAATCGAACCTTGAAAGACATAGGAGAAT
TCATACTGGAGAGAAACCTTACAAGTGTAATGATTGTGGCAAGACCTTCAGTCAGACATC
ATCCCCTTGATACCATCGTAGACTTCATACTGGAGAGAAACCTTACAAATGTGAAGAATG
TGATGAAGCTTTCAGTTTCAAATCAAACCTTGAAAGACATAGGATAATTCATACTGGAGA

TABLE 1
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GAAACTTTACAAGTGTAAATGAATGTGGCAAGACCTTTAGTCGGAAGTC

Sequence 1919

NGACCNCGCGTCCGCGCTCCGCTGCCNNGGGCGGGAGGGAGGAATGGTTGCTTCACGCCC
CGGGGGAAGAGACNNGAAGCTCGGCTCTGGGTTGCGGGCCCCGGGTCTCCGCGTGGGGC
GCACCGTCCGACCCGCCCTCCCGGTGTGCAGCGCCCCGCACCGCCCCGCCCTTGCCTGGG
AGAAGCCCCGGCGGGACGCGCCGGGCTGGAGTGGGCGGTTATAGGCTTTGAGCTAGGCCGC
TTCCGGGAGGCGGAGCTCACACCCCATTTCTTT

Sequence 1920

GTCCGTTCTTGATTCTGGAAGTCCAGTGGGTTCTGCAGCTGAAAAAGCCCTGGGTCCC
AGCAGCAGAGAGACAGGACAGAGGGGATGCTTGGGCGGGGAGGGACGGTAACCTGCAGAA
CAGATTCCTATTTTATAGAACGAGTACACGTTTGCTAAACAGTCTGCTTTCCAGACT
GGATTCACACAGGGACAGTCGGAACCTCAGGACTAGCTCCAGCGACATCTTCTCCG
AATTCAAGCCTTCTATCACAATGTCAAACAGCTATTTATAAAGCCATTTTCATTGTA
TGATAACAGCAGAGTCCCAAACTTTTAGAAATAAAATAGGACATTGGCTTGATTGAAA
AGAGGGACTTTTTAAAAATTGTTCTTTCGTGAGAAAGCCTTTTGGATGACT

Sequence 1921

GCGTCCGAAAAAATAGCATTATACCTCTTCTGTCTCAACCGCCATGAAAATTCTGAA
CACTCCAAATTCAGTTGAATAATCCAAAACAAAATTTATAAGTATAAAATAATTTACTT
CTTATAGTAATAGTATACTTTAAAAAGCCTCAGGGTATATTATCTTCTAACAGCTACAA
TTCAGTGCAGCTACATTAACCAACTATGTTCTCTAGTTGAGAACAAGTGGCCTATTTCA
CTGCTGTGTAGCCTCAGTGCCTAACATGGGTGCCAAATAAATATTCTGAGAATTACACTG
AATTGTAAAAACCATTCGTTTTTGTTCACATTGCCAAAAATCTCAAAAGGCCCTGTATT
TATGTAATTCTTTGAAATTATTATTTTATTTTGAATTTCTCAGTTATTGACTGGTGGGGTG
TGACTTAGTCATAAGTACTCAATATTATAAAACCTCAAATAATTGACTTGGATTTTACA
CAACATCCTTCCCTTTTCTACAAGTTAAATTTTTTACC

Sequence 1922

TTGGTATTCTTGGCTAATTTCTTAGCTACTTGAAGGTTAATTTGCAAGACTTTTTAAAC
TTAGAAAAGTTTTAAGGTTGCAAAGTTATCAACACTGGGGCAGAGGGTGGAGAGGCCAAT
GCGGGTAGAAGGAGGCAGTTATGTTTATATTGAAGGTGAAATTTTTCTTTCATTAGAAT
GGAAAACATCCCCAATGTATCATTATAAACTAGTCAGCCTTGAACACAAAAATTGACC
TTAAGTTGCTTGAGAAAAACACAATGCAATCGTTCAGAAGGGTCAACATCCTTTGGTG
CTAAATCTTGTGTATGTTTTCAGAATGGCTTTTTCTGTATGTTATAGAATAATCACTAA
AGGAAAGGTAGTTGAATTTAAAGTCATGAAGCAAGACTCTTAATTCAGTTATTTTAAAC
AAGAATTTAAACCCCAACATCCTTGGCAGGCTTTGAAGCACACAGAATTTCTAGNATT
TCTTATTA

Sequence 1923

CNCCGCCGGAACAACAACAGAAAGCTGTGTTTGTCTTTTTCTCTCAAATATATCTCCCG
TATGAGATTTTCAAGTCCCCATGTTTTACCAAGCAATCTGCTATGTCAGCCAACCCANCA
TCACTTTCTACAGGAGGTATGATTTTTGCCATTTACTAGAGGAAGATGTTTTATGAAAT
CAAGTTGGGGTTTGAATTCAGGTGCAGTCATCAGTTCTTTAGGGGCTGCAATGTTTTAAA
AAAAATAAGTCATCAGATTTTAAAGAAAAAGTGATGATTTCTTATTGATTTTTGTAA
CAGAATATAGGCTCTTAACTGAAAATCCAGAACCAGAAACATAAATCTTGAGTTTCTTT
CATGTACATAAAAAGCAATAGCCGTTTTAGTATAGGATAGCCCTGAGCCCAAAAGTAAT
AGAAATTTCTCTAGATATTTTAAACAGAGAGTGTATAGACTGACTCTAAGTTAATAAA
TGTGCAAAATATCTTAAACCATNCCCTNCCCTTTATTTCAAC

Sequence 1924

CCNCAAAAAGGAACCAGAGGCCACTTGTATATATATGGTCTCTTCAGCATTTATTGGTGG
CAGAAGAGGAAGATTTCTGAAGAGTGCAGCTGCCTGAACCGAGCCCTGCCGAACAGCTGA
GAATTGCACTGCAACCATGAGTGAGAACAATAAGAATTCCTTGGAGAGCAGCCTACGGCA
ACTAAAATGCCATTTACCTGGAACCTTGATGGAGGGAGAAAACTCCTTGGATGATTTTGA
AAGACAAAGTATTTTACCGGACTGAGTTTCAGAATCGTGAATTCAAAGCCACAATGTGCA

TABLE 1
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ACCTACTGGCCTATCTAAAGCACCTCAAAGGGCAAACGAGGCAACCCTGGAATGCTTCG
TAAAGCTGAAGAGTTAATCCAGCAAGAGCATGCTGNCCAGGCAGAAATCAAGAANTCTGG
TCACCTGGGGAAACTAT

Sequence 1925

CCACGCGTCCGTCCTCCAGCAGCATCCGCTTCAGCAAGGCCTGCCTGAAGAACGTCT
TCTCGGTCTACTCATCTTACCTGCTGCTCATGGCTGTGGCCGTCTTCTGGTCT
ACCGGACCATCACAGACTTTCGTGAGAACTCAAGCACCTGTCATGTCTGTGTCTTACA
AGGAAGTGATCGCTATGATGCCCCAGGTATTGCCTTGATACCCGNTCAGGCCCAAGTTG
CTCAAGCTGTAAGCACCATTACGAGGTCACTCCTCTGACAAGCCCTGGCCAGCCGG
GTGACATGAATTGCACCACCCAGAGGATCACTACACGGACCCCTTCTCCAATCAGACTG
TGAAATCTGCCCTGATTGTCCAGGGGGCCCGGGAAGTAAAAAGCGGGAGCTGGTCTTNC
TCCAGTTCGCTGAACAAGAATAGTGAGGACTTTNAGCCGCCATTGAT

Sequence 1926

GCGTCCGGTAAGTATTTTGAATTCAACCCTCGAATTATTTTCTCATTTCAGCATAGT
GATAGGGGATGCAATGAGGCTTCATTATTTTATGACCTGCCCCTCATTGCTCTGATG
TTCCCTAAATCTGTAAATCATATCATAACTTTTGTATGAATAGAGAGGAATGGGCTCAC
TGAAACCTGACACTAGAAATTGGTGGGTGATGCTCATAACTGCAAACACTTAGCTTATTG
AAGTGCCTCTATTTACATGTTCTTTAGTTATAATATGATTTTTCTAACAGAAATACAG
TCTGTAATTGGTATATATTACTTTGTATGTGTGACAACAAAAGCTAAACAGAGGCTAA
AGTCTTTAGCAGAGAAGAATGAATTN

Sequence 1927

AACTGTTTGGGAAAATACGTTGAGGGAGAGAAGACCTTGGGCCAAGATGCTAAATGGGAA
TGCAAAAGCTTGAGCTGCTCTGCAAGAGAAAATAAGCANGACAGAGGGATTGCTCTGGA
CAGANATGGAAGAGCCNGGGAACAGAGAAGTGTGGGGAAGAGATAGGAACCAGCANGATG
GCAGGGGCAAAGGGCTCAAGGGTGAGGAANGCCNGTGGGACCCACAGANTATGGGGAGA
TAAAGGACATTGCTTTGCTTTTGGTGGCACCGTAAGCTCCTTGACTGTCTNCAGCACCCA
GAATCTCATTAAAGCTTATTTATTGTACCTCCAACCGGCTTGTGTGCAATGGGGGTCTT
TTTGTGGAAAATCAANGAGCANACAGGTTTTCATGTGTACTGTCAACCACGTGGGATGNGA
ACCAGATNGCATGGAANCAAGACGCTAAATGNAAGAGGGCCATAANGGNTGGGATTCCC
AGGCNCCTTAAGAACAGCTTGTCTTTTTTTTTTCTTTCCAAAAA

Sequence 1928

CCGCCGGTAAGTTAAAGACTTTAAGGACATTCAAAGTTTAAATAGTGTTCAAATTGCAA
AATTTGGCAATCTTCATATAAATTGTTTTCTTTCTAACTTTTCAAAAACCTAACATTA
TGTCATTTATAGGAAAACATAGTTGGAATGTAATCATCAAAGATCATTTTTAAATGA
AATTTAATTAGCAGATATTGAACATTTGACTTAATTGTTAAACCCAGTTTTGTTTTGTT
TTTTAATCAGATTTTGCACACTGATTAGTTTTGTGTTGTGGCTTTTGTGCTTTATT
ATTCAAGGTTTTTTTTTTTTCTTCCCATGGGGGAGATTGTCTTCAATGTTTAACTA
CGTTTAAATAAATAAAATGAATTTATTGNTCATTTATATAAAATCTGATCCTTGATG
TAATTTCCAATACAGTTCCAATTTATGGCTTTATAATTACAATGATATTTCTTCTATA
ATAAAAACCAAAGTAAACATTTAAATGGGGAACTGATATTTTCATTTATATGAAGTAT
NAAGCCCTCTACTGGGGTCNTTATTGGNGAATCATNCTGCCTTCAAANTGGTTTCAAAN
TGGGTAGAAAANAACCTTTTTTTTTG

Sequence 1929

CCGCACACCCTAAAGAAAATAAGTATCCAGTCGACATCAGTGACAGTGATATGATGCTG
AACATCATCAACAGCTCTATTACTACCAAGCCATCAAGTCGGNGGTCTCTTTGGCTTG
CAACATTGCCCTGGATGCTNGTCAAGATGGTACAAGTTTGAGGAGAATGGTCGGAAAGAG
ATTGACATAAAAAAATATGCAAAGAGTGAAAAAGATACCTGGGAGGCAATCATTGGA
ANGACTTCTGTGCTTTCGTGGAGTCATGATTAACAAGGATGTGACCCATCCACGTATG
CGGCGCTATATCAAGAACCCTCGCATTTGTGCTGCTAGGATTCTTCTCTGGAATACCAANG
AAAGGAGAAAGCCAGGACTGACATTTGAGATTACACGAGAGGAGGGACCTTACCCCGAA
TTCTCNCAGAAATGGAGNGAAGGAAGTACATCCAGCAGCTNTGTGAGGGACCATTATCCC

TABLE 1
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AACCTGGAAAGCCCGATGTTGGTCANTCACTTGGAAAA

Sequence 1930

TTTTTTTTTACAACCAAAAAAGAAATCTTTTAATAAAATTTACTCATAAAAAATCCTA
ATAAATTTTAAAGAGCAGNGATATTCCTTATTACATTTATAAAGAACATTTGGNCCTTT
TACAAAAAGATCCCTTTTAATTNAAATACNTTCTTATTTACAGATTAAACATAAAATAT
CATNTACAGTTGCAAAGCATATTGCACATTACAGAGCAAAGCATTNGNGTATTTCCGNAA
GTTTTCCCAGAGTTCCCAACTCTATACTTTTTTTGTAAAAAGATTTACCTTGCTTATG
CAAAAATAAAATAAGAAATGCNANCTGNCGGTTTTGCTATTTAAAACTANAANCCAAAA
TAAACCTNTTAAAAATATTATTCCTCTGCCTTGCANAAAAGGAAAGTGAAGAGGGGTNTT
ANAAATCAGNGGGGGTTNCCACCAGNGTCNCTTGATAATTTT

Sequence 1931

CGTCCGGGGAAACTTTATATGGTTGGGGATAAGAATTGAATGCAAATTAATGAAGTAGAT
TTGCATTTATGGAGTTACCTCATCATGGAGTTACCTTGGTCTGTCCCACGTCAATTAATC
TTGNITCCTTATTTTCATAGACCATCCTCTAGAACAGTGTTTTCACACTGTGTATCATGA
TCCTATAATGCAGGGGTGTCCAAGCTTTTGTCTTCCCTTGGCTACACTGGTNGAAGAATT
GTCTTGGGCCACACATAAAATATACTAACACTAATGATAGCTGATAAGCTAAACAAACAA
AAAAATCACAAAAATCTCATAATGTTTTTTGAGATTGTGCTGTTTTTTAGTTGTGTT
TTCAATGGAGAAATAC

Sequence 1932

CGTCCGGCGCGTTCGTGCGTCCTAGTTCAGTACATGCGTGGAGGGTTTACGGCAGCGTG
TTCTGATTCTTTGCGGGACGGCGAGCGCATTTGTGCTTTGCCGCGCGGGCCTANGAGGC
CTTTGAGGCCGCGTAGTCGGTGTTTTTGAAGTACTCTACAGCTTCTGGCAGGCCGTGC
GGCGCCCTGACCCGGCCTCACCATGTTGGTGCTGTTTGAACGTCTGTGGGTACGCCAT
CTTTAAGGTTCTAAATGAGAAGAACTTCAAGAGGTTGATAGTTTATGGAAAAGATTTGA
AACTCCAGAGAAAGCAAACAAAAATAGTAAAGCTAAAACATTTTGAAGAAATTCAGGATAC
AGCAGAAGCATTAGCAGCATTACAGCTCTGATGGAGGGCAAAATCAATAAGCAGCTGAA
AAAAGTTCTGAAGAAAATAGTAAAAGAAGCCCATGAACCGCTGGCAGTAGCTGATGCTAA
ACTAGGAGGGGTCTATAAAGGAAA

Sequence 1933

AGGGAGCCGCCCGCGTCCGCCCCGCGTCCGCGGACGCGTGGGCTAAAACCCATCAGGCA
AGATCACCACGCATTGANATATTTTCATATCAAGATAAAGTCGCACATTTCCACAATAC
ATTGCTAAAATAAAGAGGAGAAAGGCTTAGGAAGTTTTTTGCAGAGAGTGCTGGTAAAG
AATTGAGCAAGTTTGCTATTGTATTGNAATGTTTCTCTCAGGTTTGNTCTTCCTATCATG
GNNGGTATTCATGAATAATTGAGATCAGCCCTATGTAAGGTAAGATCATAATATGGGGG
ACAAATGG

Sequence 1934

GCGGACGCGTGGGCTCCATCTGAGCTCTTGGGTGACCAGGGTGCATTGTCAATGAGGGTA
ATATTTTGAAGACATCTTTATTATGAGCAGTAGGTCTCAACAGTGGGCTTAAAAATGTGC
AGTAAATCATGCTGTAAACAGATGTGTTGTATCCAGGTTTTGTGCCATGTCTAGAGCAC
AGGCTGAGTAGATTTAGCATAATTCTGAAGGACCCAGGATTTTCAAGATGATAAATGTG
CATTCGCTTCCACTTACAGTCACCAGCTGCATTAACCCCTAACAAGAATCAGCCTGTCTT
TTGTAGCTTTGGAGGCAGGCATGAACCTCTCCTAGATGGCATCTTCAAGAGGGCTATTT
TTGTCTACATTGAAATTCTGCTTAGTGTAGCCACCTGCTTCAATGATCCTA

Sequence 1935

TNGACCACGCGTCCGGGGCGCCNTCTCCCAGCAATCAAGTCTTGCTCCCTGGCCTGCCCTC
CGGCACCTTGGAGCCCCGCTTTCCACACAGCCTTGCTCCTCCCGGCCTGGCTTGCTGCCT
GCAGGCCTCTCAGGGTCCTTACCGTCTCTCCAGTCTCGGATCCGGACCCGTGGATCTCA
GCCTCAGACCCTCCTCTGGCCCCGGCCTTGCCCTCGGGCACGGCCCCCTTTCTCTCAGC
CCTGGGGTCTGCTCCCCGAGCCAGAATATTGTCTCCTTGGAGGTCCCCAAAGAAGGAG
TCTCCCAAGATCTCCCAACGTTGGAGGGGAAGTCCAAGCCCAGGGGGAACTTGACATACC
ACCAGGTACATGCCCCCAGAGCCGAGAAGGATNCGGGGGGCAAGACCCCCANGCCGTAGG

TABLE 1
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GNGTCCTCCCTTGGGTCCTCCTGGGCCATCTCTGTGGGGAAGGGACAANACTCGCAACAA
NCCACATTCTAANGATGANGGCCCTTTNCCCT

Sequence 1936

CCNCGCGTCCGGAAAATATCCNAGGTTGTACGCAGCAGTGGAAGTTGCTCTCAAGGGAGT
GGTATTTTACACTATGCTCATGGCGACAGTCAGCAAACCTCACCTGTTGAAGCAAGGAAGA
AGCTCCATGGGCACTGGTCTCAGTGGTGGGAAACGTCCTAGTCAGGAAGAGGACACACAG
AGTATTGGTCCTAAAGNCCAGAGACAGAGCACTAATTAGGTAAATATTTAGAGCTGTAT
TTCTTGCTTTAGAAGAGTATATAATTAACATAAATTAAGATAATTTCAAAAATGGAGCAA
ATCTCTATTTTCAAACCAGAAAATCTTGAGGCATTAATTTTAAGCAATTTTACAAACT
CAGTTAATTTTGGTCAAGAGACATGCATCTGTACTGGAGAAATTGTTGCACCAAGTTTT
ATATTCATCTGAACCAATGC

Sequence 1937

CCCCGCGTCCGCCCTTTNCTCCCTGAGGACTCCACAGAAGATGGTATATTATGGGAAAC
CTTCTTGTA AAAACA ACTATGAGAATTATATTGACATAGTGAAATATGTGTT CAGCGCTT
ACAAGAGAGAGTCCCCTCTCATCGTCAACACTATGGGATGGGTTTCAGACCAGGGGCTCC
TGCTTCTCATTGATCTGATCCGATTGCTGTCTCCAGCCACGTGGTTCAGTTCGCTCTG
ACCACAGTAAATATATGCCAGACCTTACCCCGCAGTATGTAGATGACATGGATGGCTTGT
ACACAAAAGCAAGACCAAGATGAGAAATCGACGTTTCAGACTCGCAGCATTTCAGATG
CTTTGGAATTTGCTGATGAAGAAAAAGAGAGTCCAGTTGAGTTCAGTGGACATAAACTGA
TAGGTGTTTATACAAGACTTTGCATT CAGAATAACTCCAAGAAATAGGTAAC TAACCTC
ATTTGGCTGAAGAATTATTTTCCTTCGTCGAAAAAGACCTGCCATTCTCA

Sequence 1938

GTGACCCACGCGTCCGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCTCTCG
ACTCTGTTCTTCCGCCGCTCCGCCGTCGCGTTTCTCTGCCGGTCGCAATGGNAGAAGAGA
TCGCCGCGCTGGTCATTGACAAATGGCTCC

Sequence 1939

ACCACGCGTCCGGGCGCCAGGCTAGGGCGGCCCTGGCCACTGAGCCGGGGTGCAGTGGCAG
CGGGAGAGTACCTGGCGATGGCGATATGAGCGGTGCGGGGGTGGCGGCTGGGACGCGGCC
CCCCAGCTCGCCGACCCCGGGCTCTCGGCGCGCGGCCAGCGCCCTCTGTGGGCGTCCA
GTCCTTGAGGCCGAGAGCCGCGAGCTCAGGCAGAGCGACCCGAGAAACGGAACCTGGA
CCTGGAGAAAAGCCTGCAGTTCTGCAGCAGCAGCACTCGGAGATGCTGGCCAAGCTCCA
TGAGGAGATCGAGCATCTGAAGCGGGAAAACAAGGGTGAGCCGGCGCGGGGCCCTAGGCC
GGCCCTGCCTCCCCAGGCACACTCAACACTGCCGCTCCCGCAGCACAGAAACACAGCCAT
TCAACTCCAGCACACGCTGGGCTCAGGGGGAACACAGGACGATCTCCATTACAAGCTCA
TAATGAATCAGACATCACAGAAGAA

Sequence 1940

CGCGTCCGTGAAGGCCAGACCGAGAGGTGCCAGAAGAGAAACAACTCCATCCAGACACG
CGGGCGGAAAGGCTCCAGGGGTCCAGGGCCAGATGGCGCCGCTCTGCCGACTCAGAAA
GAGAGAAACAAGAGCCGAGCAGGGAGAGGTTGGGAAGAGGCCTNGACAGGCCCCANGCC
TTTGAGGAGGCGGGTGATCTTCTGAAGATCCCCAGAAAGTTCCAGAAGCAGATGGTCA
GCCAGCTGTCCAGCCTGCAAAGGAGGACCTGGGGCCAGGAGACAGGGGCCTGCATCCTCG
GCCCCAGGCAGTGTCTGTCTGAGCAGCANAAACGGCTTGGCGGTGGGTGGAGGGGAAAAAGG
CCAAGGGGGGACCGCCGCCAGGCAACTCCGCCGNGACACAGGGCAGCCCGCANAGGACA
GCNACCACGGTGGGGAAGCCTTCCCTCCAGCGGAGAAGCCGGCTTCAGG

Sequence 1941

CCGCGTCCGCAGAAACATATGTGTAGTGTGCTGCAGCATAAGATGGAAGAACTTAAAGAA
GGCCTGCGGCAAAGAGATGAGCTTATTGAGAAACATGGCTTAGTTATAATCCCCGATGGC
ACTCCCAATGGTGATGT CAGTCATGAACCA GTGGCTGGAGCCATCACTGNTGTGTCTCAA
GGAAGCTGCTCAGGTCTTGAGT CAGCAGGAGAAGGGCCATTAGATGTAAGGCTACGAAA
ACTTGCTGGAGAGAAGGAAGAACTACTGT CACAGATTAGAAA ACTGAAGCTTCAGTTAGA
GGAGGAACGACAGAAATGCTCCAGGAATGATGGCACAGTGGGTGACCTGGCAGGACTGCA

TABLE 1

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GAATGGCTCAGACTTGCAGTTCATCGAAATGCAGAGAGATGCCAATAGACAAATTAGCCC
AATACCAATTT

Sequence 1942

CCGCGTCCGCTCGCCTGCCCGGTGCACCCAGTCCGCTCACCCAGCCCAGTCCGTCCGGT
CCTCACCGCTGCCGGCCGGCCACCCCCACCCGCAGCCATGGACGCCATCAAGAAGAA
GATGCAGATGCTGAAGCTGGACAAGGAGAACGCCATCGACCGCGCCNAGNNAGGGCCGAA
TCCGACANGAAGCAANGCNTGAGGACCGCTTGCAAGCANGCTGGAGGAGGAGCAGCAGGC
CCTCCAGAAGAAGCTGAAGGGGACAGAGGATGAGGTGGAAGTATTCTGAATCCGTGAA
GGAGGCCCAGGAGAACTGGAGCAGGCCGAGAAGAAGGCCACTGATGCTGAGGCAGATGT
GGCCTCCCTTNACCGCCGATTAGCTGGTTTGAGGAGGAGCTGGACCGGGCCCAAGGANC
GCCTGGCTACAAGNCCTGCANAACTTGTANGANGCCNNNNAANGCCGGCCTNATNATTN
GCCNNGAAGAGGGAATTNAAANGTTNTTNNAAAAACC

Sequence 1943

GTCCGCTTAGTTTCTGCATTATNAGTNAGCATAAATAATAAATCCAGAAAACGTGCTGTA
TTTGTGTTGTTTCTCCATGGGCTTTCCCGCCATCTAATTTGATATAGACTTCATCTCC
CGGCTCCAAATGAAGAACCACACTGTTACTGGCATAGTCGTAATTCTGATCAGCATCTTG
GGCAATTGCACTAGCACGCACCTACGTGAAACAGACAAGAATTAGGATGCGTAAATGAGA
ATTCTCAAGTTTTCTTTTTGCCATTATGTAGCATCACAAGCTGACTTGCTGCCATAGT
ACAGAATTTAGCATAGCAAAG

Sequence 1944

GCGTCCGGCTGCGGGCGGTGCGGGCTCCGGGCGGGGCGGCGGCCATCTTGTCGCCGG
GGCCGGTGGGGAGGCCGGGGAGGGGGCCCCGGGGGGCGCAGGGGACTACGGGAACGGCCT
GGAGTCTGAGGAACTGGAGCCTGAGGAGCCCCCGGCAGCCAAGAGGAGGAGGAGGAGCCG
GGACTGGTCGAGGGTGACCCGGGGGACGGCGCCATTGAGGACCCGGAGCTGGAAGCTATC
AAAGCTCGAGTCAGGGAGATGGAGGAAGAAGCTGAGAAGCTAAAGGAGCTACAGAACGAG
GTAGAGAAGCAGATGAATATGAGTCCACCTCCAGGCAATGCTGGCCCGGTGATCATGTCC
ATTGAGGAGAAGATGGAGGCTGATGCCCGTTCCATCTATGTTGGCAATGTGGACTATGGT
GCAACAGCAGAAGAGCTGGA

Sequence 1945

CCCACGCGTCCGGCAAACCGGGAAAGGAGAGGATCCCGGAGCCGGTGAGAATTCTCTGTT
TTTTCTTACCATCCTTTCCAGGCCTTTTCTCACCTAATGAGTCGTAGAGACGAGGGCC
CAAAAAGTCTGTAAAGGTGGCTGGTGAAAGATTAAGTGNTCCAAGGGCCCTACATTCCNG
GANGNGGTTCCGGGATAAAAGAGAACTAGTCNTGGGAACAATGTAAGTGGAACNTNAAGG
NANNGNAAAGCGGCCNATAAAGNGNCCGAGGNCCCAATGGNANTAAAGCGGACCCTG
TGTAAGGTATAGAGTTGAGTCAAGTGAGTCACTGCCTCTTGTCCTCTTGGTCAGCGTGA
TGGCCAGAGCCTGGGGGCCCCCCTGCGGTGGGCCGTGGGGACTGCTGANCTGGGCCN
ACTTGG

Sequence 1946

ACGCGTCCGGCCGGGAGTGGTGGTGGGCACCTGTAATCCCAGTTACTCGGGAGGCTGAGG
CAAGAGAATCTCTTGAGCTCAGGAGGCAGAGGTTGCAGTGAGCTGAGATTGCGCCACTGC
ACTCCAGCCTGGGTGACAGAGGGAGACTCCGTCCCAAAAAAGAAAAAGAGAAACAGCT
GTCACCTCCCGCAGGACCCAAATCCTCTCTCTGAGCACCGTCATCCACCACATGGCTNGG
CCTNGNTTCCAAGANCNAGTCNANCCTTTNNNGNCTTANTTNNAGGTNGANNCCGCNNNT
TTCNNCCCAAAGGAGACAGCCCCTGCTCCTAGATGCCCTTGGCCTCCGCAGTGCAGCCCC
CAGGTGTCCTGACTGAAGCANAGGCCNTAGCCCCAT

Sequence 1947

NCGCGTCCGAAGTGGATGAAAATTGGTACCATGGGGAAGTCAATGGAATCCATGGCTTTT
TCCCCACCAACTTTGTGCAGATTATTAACCGTTACCTCAGCCCCACCTCAGTGCAAAG
CACTTTATGACTTTGAAGTGAAAGACAAGGAAGCAGACAAAGATTGCCTTCATTTGCAA
AGGATGATGTTCTGACTGTGATCCGAAGAGTGGATGAAAACCTGGGCTGAAGGAATGCTGG
CAGACAAAATAGGAATATTTCAATTTTATGTTGAGTTTAACTCGGCTGCTAAGCAGC

TABLE 1

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TGATAGAATGGGATAAGCCTCCTGTGCCAGGAGTTGATGCTGGAGAATGTTCCCTCGGCAG
CAGCCCAGAGCAGCACTGCCCCAAAGCACTCCGACACCAAGAAGAACACCA

Sequence 1948

CGCGTCCGAGTATTTGAAGTGATGCTGGCTCAGACCGCTCCCACTATGCAAAATGTAACC
CATACATGGATTCTCCACAATCAATAGGTTTTGCTGAACTGCTGAGCCTTGGCAGTGGGC
GCCTTTGAGGCTTAGAAGTGCCNNAAGNNTCTNNCANNNGNTNNCATGCTTTNTTTTTT
TGNCGCACTNTTANCAGTCANCAANAAAAATCCNGGGGNGNTNNTNANCCCCNAAGGCNC
NNGNTNCCACNGTTCAGTGAACTTGCTTCAGAGGCAGAAAGAAGCAGGTTTCCAAGCAA
CAATCAGTGCTCCACACATGCATGCATATGCGCTAGAACTTCTATTTGATCAGTTGCATG
AAGGAGCTAAAGCTCTTGATGTAGGATCTGGGAAGTGAATC

Sequence 1949

CCACGCGTCCGGAGAGAATGGGCCGCGCGCGCCCGCGGGGAAAGCCTGTCGGGAAC
CCGGGAGAGCCTGGCCCAGGGCCCCGACGCCGCAACCAACCGACGAACTCAGCTCTCTCGG
GTCTGACTCGGAGGCCAACGGCTTCGCCGAGCGCCGCATCGACAAGTTCGGCTTCATCGT
GGGCTCGCAGGGCGCCGAGGGCGCGCTGGAGGAAGTACCCCTGGAGGTGCTGAGGCAGAG
GGAGTCCAAGTGGCTGGACATGCTCAACAACCTGGGACAAATGGATGGCCAAGAAGCACAA
AAAGATTCTGCTGCGGTGCCAAAAGGGCATCCCGCCTTCTCTGCGGGGCGGTGCTTGCCA
GTACCTGTGAGGAGGCAAGGTGAAGTTACAGCAGAACCCTGGAAAGTTTGACGAGCTGGA
CATGTCCCCTGGGGACCCCAAGTGNTTGGACGTGATGGAACCGTGACCTGCNCCGGCAGT
TNCCATTATGAAGAGTTTTTGTGTCCGGGGGGG

Sequence 1950

NGCGTCCGGCTTTACAACGGGCAAATACTGGAAACCATCGGAGGCAAACAGCTCANAGTC
TTCGTATATCGTACAGCTGTCTGCATTGAAAATTCATGCATGGNGAAAGGGAGTAAGCAA
GGGAGAAAACGGTGCGATTACATATACCGCGAGATCATCAAGCCAGCANNANAAATCCCTC
CATNGAAAAGTTAAACAAGGATAAGCGCTTTAGCACCTTTCTCAGCCTNCTTGAAGCTT
GCANAACCTTGAAAAGAAGCTTCCTGACACAACNCTGGAGACTGGGACATTATTTGTGCCA
ACCAAATNGATGCTTTTAAAGGGGAATGACCTAGTTGAANNAAAAAAGGAAATTTCTTGA
TACNGGGACCAAAAAAATGGCTCNTTTCAAAAAACAATTCCATTTCTTTATTTNACCCC
TGGACCACCCCAAGGGAAGTTTTTTCAATTTGGGGAAAAAAGNGGAATTTTTGG

Sequence 1951

CAATNCTTGAACCAGGAAGGCGGAGGTTGTGCGGGGCTGAGATTGCACCACTGTGCTCCA
GCCTGGGCGACAGAGGGAGTCCCTTTCTCAAAAAATAATAAAAAATAAGATGGCAG
TAGGAAGGTTTCAGCTTGAGATGCTGTCTTTCTCTGTTTTATGCATAAATACAACGA
AGACGGGAGAGGAGATGGAAAGCAAAGATGATTAAGTGAATAATTGTGGGAAACAATAG
AGGGATAGACTTTGCTTATAGGGGATGTGGACAGAGCAGAAAAATGGGAGGAATGGGGAG
GATTCAGTTAGAGAAGGAAGAAACCGGTCCAAGGGGCTGGGGCTTTAGGCCCTGGGGCCT
CCAGTGCCCGTATAAGGCTGTGGCAGAAGCCCTGCCATTTCCGTTCTTTCACTCCCTA
TNTTACCCTTACACCTCCCAAAAC

Sequence 1952

CCGCGTCCGGGTTTTTGGCCTTATTTTCTGGCTTTTCTTCTCCAACTTTGAGGCGT
GATTTTATTTCATTGAAGAATCAATACATATTTTGTTCAAAATGTTTGAAACAAAAGACA
TAGATGGTAGACTTTTATTAACATATATGGATGTGGAAAGCACATATATTAATGCAGT
CATCCCTTTTCAGGTGGGAAGAGAGCAAACCAAGTTGATTTTTTAATTCATCCTTAGTACA
CAGAGAATATCTTTNCTCAAGGAATATACCCTGGTTGGAGCTTTAAAAAAGAATGGTTT
TGGGAACCATTTTCAATTTTCCCAANAAGGTTGCTATTCTTGGGGTAANTGGGGNATACCN
GANTGNTTTTTCCNGGGGGGTTTTGGTGGTGGGGGTAAAATTGGGGNTTTTTTTTT

Sequence 1953

GCGCCGAGGGGTGTAATGCATTNGCAGCAAGAGCTATGAGAAATAACTTTAGACATTATT
TCATTGAACCTTCCCAACTGAAATTATTTTATGATGTTATAACATGGATAGTAACTCAAG
TAGCAATAAGTTACACAGTTGTGCCATTTGTGCTTCTTTCTATAAAACCATCACTCACGT
TTTACAGCTCCTGGTATTATTGCCTGCACATTCTTGGTATCTTAGTATTATTGTTGTTC

TABLE 1

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CAGTGAaaaaaaactCAAAGAAGAAAGAATACACATGAAAAcattCAGCTCTCACAATCCA
AAAAGTTTGATGAAGGAGAAAATTCTTTGGGACAGAACAGTTTTTTTACAACAAACAATG
TTTGCAATCAGAATCAAGAAATAGCCTCGAGACATTCATCACTAAAGCAGTGATCGGGAA
GGCTCTGAGGGCTGTTTTTTTTTTTGATGTTAACAGAAACCAATCTTAGCACCTTTTCAA
GGGGTTTGAGTTT

Sequence 1954

TCGCCCCGCGTCCGGTTAAAACTGCCTCTTTAGATGTGGATGCCTTAATGCTGTAACACA
TTTGAAAACATTGGCAATACTTAAGTTGCTGCCATGATTACAGATGGAATTATTGGCTAC
CAAAGAGACGCAATTGATGATGAGAAGCATGATTCTTGCTTCCATATAACCAAAGTTAAT
CTTAATTGCAATTTGACTCCGTTTCCTTGGTAGGGATAGACTTTCTTCAGATTCCAAGTG
CTCTCTTAATGGCAAATTAAGTTAAAGAATACTACTGCTCCATTCCCCTCACTTATTCT
CCAGTTAATTGCTTGTCAGTTCCATTTCAAGAAAGCAGTGGAATGTTCCAGGTTTGATTCA
GTTTTCTGTGCACACTATTGCCAAATTTTTTTTAGCAAAGATTCTGCACTGGAACGTA
GACAGTTGAAACAGTACTACCTACTAGAGGGTATGGGGTTTCTCTTCTCCCCGCTTTC
ACCTCTTCTTTTCCAATTC

Sequence 1955

CCNCGCGTCCGGCTCTGCCAGTCACCCGGTCTCCTCCGGCTTCCCTCCGGCCAACAGCG
CGCTCAGGCTCGCCTCAGGCCCTCCAACGGAACAGGAGTCGAGGGGCAGTGAGGCCGGG
ATGCGTGCGAGCGCGGGGCGCGGCTGGCGCTGGGCCGTGGGGGCGGGGCGGCGTGCGTGC
CAGCGGCCGTGCGATTCTGTGAGGCCTGCTCTGCGCCGGCGGGGAAGCGCGGGCGACGCT
ACGCTGGACGTCCTTACCTGCCGGAGGAGAGAAAGTGCCGTCAGCTGTAGGGG

Sequence 1956

GCGTCCGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGAC
GCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGAGAAATGTGCTATACCCC
AGAAATTCATCGATCTGTATGGGCCCAAAGTTCCAGAATCCAGCAGATTACTCGGG
ATTTCAATGTTCAAATTAATTTCCAGACAGAGAGGAGAACGCAAGTTCACAGTACAGAGC
CAGTTGTCCAGGAGAATGGGACGAAGCTGGGGAGGGGAGAGAGGCTAAAGATTGTGACC
CCGGCTCTNCAAGGAGGTGTGACATCATCATCTCTGGCCGAAAGAAAAGTGTGAGG

Sequence 1957

CCACGCGTCCGCTGGAGGCACTGGACGAGATGCTGACGCACGACATCGCCAAGCTCATGC
CCCTGCTGCGGCAGGAGGAGCTGGAGAGCACCGAGGTGGGCGTGCAGGGGGGCGCTTTTG
AGGGCACCCACATGGGCCCGTTTGTGGAGCGGGGACCTGACGAGGCCATGGAGGACGGCG
AGGAGGGCTCGGACGACGAGGCCGAGTGGGTGGTGACCAAGGACAAGTCCAAATACGACG
AGATCTTCTACAACCTGGCGCCTGCCGACGGCAAGCTGAGCGGCTCCAAGGCCAAGACCT
GGATGGTGGGGACCAAGCTCCCCAACTCAGTGCTGGGGCGCATCTGGAAGCTCAGCGATG
TGGACCGCGACGGCATGCTGGATGATGAAGAGTTCGCGCTGGCCAGCCACCTCATCGAGG
CCAAGCTGGAAGGCCACGGCTGCCCGCCAACCTGCCCCGTNGCCTGGTGCCACCCTCCA
AGCGACGCCACAAGGGCTCCGNCGAGTGAGCCGGGCCCCCTT

Sequence 1958

ACGCGTCCGCCTGGCTAACATGGCCGAAAGGTCGTATTCTCCGGGGGAGGACGGAGGCC
GGAGAGGAGGGGGTGGAGTGCTGTTTTCCAGTCAGGCGGCCGGAGGGCAGCCCTCAAG
AACGGCCCTGACCGCCCGCGGGGTGAGGGGCCCTTTCTGGGCAGGACCCGCCCTTGGTC
CCGCAGAGCCTTGGTACTTGGACCTGAACCTTGCTCCGAGAGGGAGTCTCGCGGACGTC
AGCCAAGATTCCAGAATGACTACTATCTTGACTTACCCCTTTAAAAATCTTCCCACTGCA
TCAAAATGGGCCCTCAGATTTTCCATAAGACCTCTGAGCTGTTCTCCAGCTACGAGCT
GCCCCAGCTGTCTCAGACCAAAACGAAGACGTTAGCCAAACCAATATAAGGAATGTT
GTGGTGGTGGATGGTGTTCGCACTCCATTTTGTGTCTGGCACTTCATATAAAGACCTG
ATGCCACATGATT

Sequence 1959

CCACGCGTCCGGGGGACATGGTGGTGAGCAGGACAGAATTCCTGTCCTCATGAGTCTTAC

TABLE 1

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ATTCTAGAAGGAAGGAGCAGATAAAATCTAAATAAGGTTATGAGATTGTGACGAAGCGTC
CGATTACACCTCAACAAGAAGGCAACTGACAAACAGCCTTATAGCAAGCTCCCAGGTGTC
TCTCTTCTGAAACCACTGAAAGGGTAGATCCTAACTTAATCAACAACCTGGAAACATT
TTGAATTGGATTATCCCAAACCTTTATTTTCTTCGGTAGCACCAATGAAAAGA

Sequence 1960.

TCCGGTGCAGCCGGGCTAGCTTCTCCTGCATCTCCCGAACGTGCTCCAGCTGCTCAAAGG
AGCNTTCCCTCCCTGGAACGAANCCCTGNCTGAACCTNNNAAAGAGNCCTGGAACCT
GGAACCTGGAACCATGNNCCAGCCNTNCCCCANGNACTGGGCCCTACAGCCCTATCCA
CACACCCGCTGAAACCAGCCCCAGGACTCACCGAAGGCCNGGGGGCGGCCAGAGTGGAA
ATCATTGAGCAGGTTGAGGAGTCCCCCTCATCTNATAGACATCAGTCACCTCGGTGAG
GAAGGAGTGTGCAGGGGCGTGCCTGCAGAGCCGCTTCCACCTCCAGCCAGGACT

Sequence 1961

NGNCGCGGTTCTCGTCTCCTCCCGGCCGGCGGAGCGAGTGGAGGCTGCAGCCAGCTCGT
CTCGGCGCCCGCGTGCCTGTCNCGAAGCCCCCGCCCGCTTCGCGCGCTCGGAATGAG
CTCCCGGAAAGTGCTGGCCATTGAGGCCNAAAGCGGAGGCCGAAAAGAGAGAAACATCC
GAAAAAAATCAAGCAGAAGATTGAGCTGCTGATGTCAGTTAACTCTGAGAAGTGTCTCT
CTTCAGAAAGGCCGAGCCTCAACAGAAAGCTCCTTTAGTTCTCTCTCCACCGCCAC
CACCACCACCGCCACCTTTGCCAGACCCACACCCCGGAGCC

Sequence 1962

CGCCACGCGTCCNNCCCGCGTCCGGGAGAAGATGGAAGCAGTGCCCGACGTAGAGCGCA
AGGAGGACAAGCCCGAGGGGCGAGTCACCTGTGAAGGCTGAGTGGCCAGCGAAACCCCGG
TGCTGTGCCAGCAGTGTGGCGGCAAGCCTGGCGTCACCTTCACCAGTGCCAAGGGCGAGG
TCTTCTCCGTACTGGAGTTTGACCCCTCAAATCATTCTTTAAGAAAATTGAGTTCCAGC
CTCCAGAAGCCAAGAAGTTCTTCAGCACAGTGCGGAAGGAGATGGCGCTGCTGGCTACCT
CACTGCCTGAGGGCATCATGGTCAAGACTTTGAAGATAGAATGGACCTCTTCTCAGCTC
T

Sequence 1963

TCCGCGGGNGCGTGCGGCCGCACTCATTTGCATTATCTTAAATCACAAATAATTACTTAA
TTNGCTGGAGTGTGTGCTTTGCAACTTTTATACCAGAGTAAAATTTGTATTTAAACAAA
AAATAAGAATGCCATCACTAGGAGAAACACTCCTCACAGAAAACACACACACACACA
CACACACAATTTAAAACTGAGTAAATTTAAATGTATGAAAGGCNCCACAAATTGATTT
AACAAATAAATTTCAATTTCTAGCTACTTATGTCTGGCCTTATTTTGAGCGTTACAATT
TTATTGCCTTCATTTGCCTATTTAGACTGATGTAGTTTGATATGATGAAGT

Sequence 1964

CTNTAGGGAGNCGACCCACGCGTCCGCCCCGCGTCCGGTTAGTTCTACCTGGTGCCCATG
TTCTGATTGTGTGTGGGATTGCATGGTGTCTGATTGCATCTAGGTGGAGCGGATGGAAT
GTGCTGGGCCACTGTTGGGTGGAGAGCAGCACATTCTACAGAGGAGATGGAGCGTTATG
AGCATAGTATGTGGATAGGTATCTTCACCTGCCCCGCCCTGAGTCAGCCTCCTTGACTTG
ATAGCTTGAAGAATCCTTTTCCACTGAAATAGAGGATAATTAATTGACACATCTGAAATC
CCCAATCAATCAATCAAGAAAGGTAGAACTAAAACTCCTTAACCTACTGTTGCTTAC
ACCCCTGAAAGTCTGTTTT

Sequence 1965

CGTCCGGCGCCCTCCAGCCCCGTCCGGGAGTCCCCGGCCCGCTGCGGTGCCGGGAGTACC
TCCAACCCCTGCNCCCCNNANGGAGGCCNAGGGGCTTAGCCACCAGGGCTCGGAAGTGG
GGGCCGAATCCGGTGCNNGNCNNNNNNNAGGNNAGCANAGCCGGAGTTGGGGAGACTGGT
TGCTGAAAAGCCAGGAGTCAAAATGACTGAGCGCTTGACTGCCACCATTGCAACGAATC
TCTCTTTGGCAAGAAGTACATCCTGCGGGAGGAGAGCCCCTACTGCGTGGTGTGCTTTGA
GACCCTGTTGCCAACACCTGCGAGGAGTGTGGGAAGCC

Sequence 1966

CCCACGCGTCCGGTGCCTCAACAGAACGGCCCTTCAAATGTGAGAAATGTGAGGCAGCT
TTCGCCACGAAGGATCGGCTGCGGGCGCACACAGNACGACACGAGGAGAAAGTGCCATGT

TABLE 1

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CACGTGTGTGGCAAGATGCTGAGCTCGGCTTATATNNNNGACCACATGAAGGTGCACAGC
CAGGGTCCTCACCATGTCTGTGAGCTCTGCAACAAAGGCTTCACCACGGCAGCATACCTG
CGCATCCACGCGGTGAAGGACCACGGGCTCCAGGCCCGCGGGCTGACCGCATCCTGTGC
AAGCTGTGCAGCGTGCCTGCAAGACCCCTGCCAGCTGGCCGGCCACATGCAGA

Sequence 1967

CGNCCCACGCGTCCGGCGGTGCCGCGGGGATGGCGGGAGCCGGAGCTGGAGCCGGAGCTC
GCGGCGGAGCGGGGGCGGGGGTCNAGGCTCGAGCTCGCGATCCACCGCCCGCGCACCGCG
CACATCCTCGCCACCCTCGGCCTCGGGCTCAGCCCTNNNNCCNNNNNANNNATGGCNNGN
TCAGGGGGCCTGGGGTCTGGGACAACGCCCCGACCACTGAGGCTCTTTTCGTGGCACTG
GGCGCGGGCGTGACGGCGCTCAGCCATCCCCTGCTCTACGTGAAGCTGCTCATCCAGGTG
GGTCATGAGCCGATGCCCCCACCCTTGGGACCAATGTGCTGGGGAGGAAGTCTCTAT
CTG

Sequence 1968

GCGTCCGGGCGTGTAACCAGCCGGAGCGGGCGCGGCAGCGGCAAGGACCGCCGTGGCGCC
TAGAGTAGCCGACCCGGGGGAGCGCGGGGCGACGCTGGCTGCAGGGACCCGGTGACAGC
GTGAGAGGTTTCGAGAGTACTAGGTTTTGACAAGCTTGCATCATGCGTGAGTATAAGCTA
GTCGTTCTTGGCTCAGGAGGCGTTGGAAAGTCTGCTTGAAGTGTACAATTTGTTCAAGGA
ATTTTGTAGAAAAATACGATCCTACCGATAGAAGATTCTTATAGAAAGCAAGTTGAAGT
AGATGCACAACAGTGTATGCTTGAATCTTGGATACTGCAGGAACGGAGCAATTTACAGC
AATGAGGGGATTTATACATGAAAAATGGACAGGGATTTGCATTAGNTTATTTATTNCAN
GCCANNCCCAATTTTACGTTTAAAAAACCTGNNNNAAAAAAATTTTTTGGNTAAAAAN
CCNTNTGTNTCCCCAAAANTTTTTTGGGGNANAAAAANNGGCCCTCCNAAAAA

Sequence 1969

CCCACGCGTCCGCACGCCAGTGCCTCCCTTTACCTACTAATGAGGCAAACTTTGAGATT
GGGAATAACTTTGCCAGGGTTAAATGCAGGTAACAATGTCACTATCCTCCTTGGTGGGC
ACATCTNANAATTTTAAATGAAGAATTCTTAAGACNGTCTTTCTAAANNACTATTTNGTAC
ATTATGCTTGAAGAAATNTGNGAATTGAGGGAAACA

Sequence 1970

GCGTCCGGTTTTCCAAGTGCAGCTTTTTAATGGTTAACCTTCATCTAATTTTTTTCTCC
CACTGGTTTATAGATCCTCTGACTTGTGTGTGTTTATAGCTTTTGTTCGCGGGGTTGTG
GTGAGGAAGGGGTGATGGCATGCGGAGTTCTTTATCTTCAGTGAGAAANNGGCCCTGCCCG
CCTGAGAGCCAGCTTNCGCGTTGGAGGCACCGNGTTCAGAGAGCTGCTGAGCGCCACCCT
CTACCCNGCTGACAGACAACACAGACCTGTGCCGAAGGCTAANTTGNNGCTTTTACGAC
CTACCCACCCCTGTTTTCAGGGGTT

Sequence 1971

CGTCCGGTGAGATTCTCCGTAATGGGCGGGGACAGAGTGCCCTGCAGGAGATTCTGGGCA
AGGTTATCCAGGATGTGCTAGAAGACAAAGTGCTCAGCGTCCACACAGACCCTGTCCACC
TCTATAAGAACTGGATCAACCAGACTGAGGCCAGACAGGGCAAGCGCAGCCATCTCCCA
TATGATGTACCCCGGAGCAGGCCTTGAGCCACCCCGAGGTCCAGAGACGACTGGACATC
GCCCTACGCAACCTCCTCGCCATGACTGATAAGTTCTTTAGCCATCACCTCATCTGTG
GACCAAATTCGATATGGGATGCGATATGTGGCCAAAGTCTGAAGGCAACTCTGGCAGAG
AAATTCCTGACGCCACAGACAGCGAGGTCTATAAGGGTGGTCGGGAACCTTCCTGTACT
ACCGCTTCTGAACCACTTGTGGTGGCTCCTGACGCCTTCACATTGTGGCCATGGCAANC
TGGTGGAGCCCTGGCTGCCCCCAGCGCCATGCCCTGGG

Sequence 1972

GAGGGGAGGGAAATTTATTTCTCTGCTTTTCTATTATACAAGTTGTTTACAGAACTGCA
AATTAATAAATTAACACTGGCATTGTCAGTCCTTAAATAAATTAAGTTCTCAACTTTT
TTTTTTTGTCTAAACATTTTTTAAAGTATGAGTCCTTTGTTTAAAAAGAAANAGATTANA
ACAGAAAATATTTTCTATAAATAATACATGTATTTGGTTTTAGTGCTCCCGCCC

Sequence 1973

TABLE 1

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GCCGACCCACGCGTCCGACATCCCAGGCACATCCGGAAGGAGGAAGGTTCTTTTCAGTC
CTGCTCCTTCTGCANGNCCAAGAAATTCCTACTACCATGATGGTCACACTCAACTGCCCTGA
ACTACAGCCACCTACCAAGAAGAAGAGAGTACACGTGTGAAGCAGTGTGCTTGCATATC
CATCGATTTGGATTAAGCCAAATCCAGGTGCACCCAGCATGTCCTAGGAATGCAGCCNCA
GGAAGTCCCAGACCTAAAAACAACCAGATTCTTACTTGGCTTAAACCTAGAGGCCAGAAGA
ACCCCCAGCTGCCTCCTGGCAGGAGCCTGCTTGTGCGTAGTTCGTGTGCATGAGTGTGGA
TGGGTGCCTGTGGG

Sequence 1974

CGCGTCCGCCGAGAGAAGAGGTACGGTCAAGCCCGGAGCCAGGCCGAGCGGGAGCTGAC
CAGGCTTGACTCGGGTACAGAACGAGGCACCAAGTCCCCTTGCGAACCAGAGGGCCTCGCA
GTGGATGGAGGAGGCCAGCCCTGAGGTCAACGCCAACCAGGCTAGCCTGGCACGGGGCC
TACAGGGTGGGTAGGCGGGCGTGCCGCAGCCGTCAGGGCCTTCCCTCAGGTCCCGGGCC
GAGGGGCTACGCTGCGGCCCGGCAACAAGGCCCGACTCGGCCCTCGGGACCAGAGCCC
CACCCGATCGGAAGCGGATC

Sequence 1975

GGCCTCAGGGGGNAGNNATCCTGCAAAGACNNACATGAGCCCANAGGGGAAANAGAGNCA
CCTGNGAGTACNNGCCTTTGGGNNTGACCTTGGCTCTCAGCACAAAGATATTTACAGCCTN
TGAGCTTGATATTCTAGAATTGNTACAGAGATAGCTCTGAAAAGAAATAGACTAGAAGG
ATAAAGGGAAGGAATCATAGCTTATGAAGGTTTTACTCTGCATCAGACCGNNTTCTAGN
NCTATGACTTAACGTCCCTATAGGCTGTAAGGTTCTCTGCGTGAACACTTCTTNTCTGGCC
TCCTTTCTGCCCCATTCCTNTTTAACTCAGTTGCTGAGTTTATTATNCCCTGTGCATCC
CTGGGCATTGNTCATTACATATGGAACAATTANGGAGGACCCTTTGCCTANTTTNCT
TTATCCTCTTGAATTNTGGATGGGAAAAATNTAANTNCTTTTGCCGCTGCANTNGG
GNAANTATTGGGCCTT

Sequence 1976

CGCCCCGCGTCCGCGTTGAACAGCTTTAAGAACAATGTGAATGAAATCTTAGCAACTTGG
TTAGTAATCTGAAAAGTCTATTAATGTATACTTGAAATTCTGTTTGTATAAAAATGCATT
TTCCCCTTTATTTTAACACTGTGTAAGAACAATTATGCATGTGAGTGGTTTGAGAATTA
AATGGTTTAATACTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANGGGGNGNCCNTTANNNTNNTTNAAAA
AAAAACCCCCNNCCNCCCCCTGNACCCGNAANNAANNAANNNCCNTNGGGGGGGGA
ANCCTNNTTNTGNCCCTTAANAGGGGNCCCAAAAAANCNATTNCCNCCCNANTTTNNN
AAAAANNTTTTTTTCCCNNTTNNAGNGGGGGGNNGGCCCANCCCCANAAGGGGTT
TTTNAAGGGGGNAACCCCCNGGTCCCCGNCCCCAAAAAAA

Sequence 1977

CGCCNCGCGTCCGGGCTGCCGTAACAATCGCCACAAACCTGGTGACTTAAATAACAATA
TTTATTTTCTCGTAGCTCTGGAAGCCGGAAGTCCAAAACCAATAACTTGGCAGGGCTGTG
CTCCCTCTGGGAGATCTCGGGGAGCCTCCTTGCTACATGTTCCGCTTCTGGGGACTTCTG
GTGGTGTTCCTGGAGGGCCAAGGCCTCCGGGCGGCCCGTGCAATTCGGTGAACACCTCC
AAAGAGCTCTGAGTCACAAAGCCTTGGGAACTTTATTTTATTCTTTCTAGGACATTATC
AGTAGTCCCGAGGAGACATCAATTACAAAACAAAAAAAAAAAAAAAAAAAAA

Sequence 1978

CGTCCCAGACAGTCAGCCGCATCTTCTTTTGCCTCGCCAGCCGAGCCACATCGCTGAGGAC
ACCATGGGGGAAGGGTGAAGGGTGGGAGTCAACGGGATTTGGGCGGTATTTGGGCGCCC
TGGGTACCAAGGGGCTGGCTTTTAACTTCTGGGTAAAAGGTGGGATATTGGTTTGCCA
ATCAAATGACCCCTTCATTTGACCCCTCAAACCTACCATGGGTTTACAATGGTTCCNAAT
ATGAATTCACCCAATGGGCAAAATCCCCTATGGGCACCCGTCAAAGGGCTTGAGAAACGG
GGAAAGCTTGGTCAATCAAATGGGAAATTTCCCNATCACCATCTTTCCAGGAGCCGAGNA
TCCCTCCAAATCAAAGTGGGGGCGATGCTGGGCGCCTTGAGGTACCGTCGTTGGGAAGT
CCACTTGGCCGTTCTTTCACCCAACCATTGGGAAGAAAGGGCTGGGGGCCTCATTTTGCA
GGGGGGGGGAGCCAA

TABLE 1
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Sequence 1979

GAGTGTAGTTACTTCGGTCTTGCCCTCACTGGGAGGCCACGTTGGTGACGATGCACACGAA
GCCCCGGTACTTGTCCAGGTTAACCATGTGCCCGTCCGATGTCCTTGGCGGAAAACTCGT
GCATGGAGCGCGCACAGCGCCAGTCGTCCNNGGACGCGCACGGGTCTTGGGACTTGGGAC
ATTCGNGGATCTCCGGTCGCAAGCTGCGGGGACAAGGCTTCTTCCGCCGGCGCCGCGCCC
TCCTGCGCCTGCACGCTGGGGCCTTCCGCCGCCGAGGGGCTCGCGGCCGCTAGACTA

Sequence 1980

CGCGTCCGATCGGAAGTGGCGCTCGTGCAATTCAACTTGTTCCCGCTCATGGAACCCCTCT
TTAAAAAGACGCAGGGCACCTGTGAGCGCAGGAGCGAGCCTAAGGCCACCCAGCGGCAGC
GCCCGTGTCTGGGCACTCAGCGTGCTGGGCAGAGCAGGTGCGATGGCCCCAGTCCTAGC
AGCCCTCGCCCATGTCCTGTGCCCTTACATGGCTCCCGGACTGTGCAGGGAGCCGATACG
TTTGCTGATAGCAATACTGGAACCAACCCGGGTGCGATGGCAGTGAGGAGACTGCCAGTG
CCTTTGGGGCTGTGCTTGCAATAAAGAAAGAAATTTCTTGAAAGGCAGTCTGCAAAAGAG
GGAACCCGGTGACTCAGAAAGACAGGATGTTTTGGTAATTTACCCNAAATGTGCCATCC
ACCATAGTGCTTTTTCTCTTGCCTTCGGCTTGTGTAATCTCACAATTATGGTATTTA
ATTCTCAAAGAAATATGTATCTGTTAGCCCGNTTGGTGACACTTATACAGATGATTAA

Sequence 1981

CNCGCGTCCGGTCAAGCGAGGACGTGGTGGGTCTCTGGTGCGAAATCCGGATTTCCT
TGGGTCTTCCGGTAGGAGCTGTAATCAATTGTGCTGACAACACAGGAGCCAAAAACCTGT
ATATCATCTCCGTGAAGGGGATCAAGGGGACGGCTGAACAGACTTCCCGCTGCTGGTGTG
GGGTGACATGGTGATGGCCACAGTCAAGAAAGGCAAACCAGAGCTCAGAAAAAAGGTACA
TCCAGCAGTGGTCATTCGACAACGAAAGTCATACCGTAGAAAAGATGGCGTGTTTCTTTA
TTTTGAAGATAATGCANGAAGTCATAGGTGAACAATAAAGGCCGAGATGAAAAGGTTCTG
GCCATTACAGGACCCAGTAGCAAGGGAGTGTGCAGACTTGTGGGCCCCCGGATTGCATC
CAATGCTGGCAAGCATTGCATGGATTCTTCCAGTATATTTGTAAAAAAAAAAAAAAAAAAN
NAAA

Sequence 1982

GCGTCCGTGGTAACGATTGGCCCTAAGAAGCCCCTGCCTGACCCGTGAGCATTGTGGAAC
CCAAAGATGAGATACTGCCACCACCCCCATCTTCAGAACAGAAGGGTGGGGAAGCCAGA
GCCCCNCTGCCATGCCCCAGCCAGTCCCCACAGCATAACAGGGTCTCCTTGGCAAGCTGT
ATTCTGGAGTCTGGATGTTGCTCTCTAAAGACCTTTAATAAAATTTTGTACACTGGACTT
TAAAGTATTGNTCACAAGGGTTATGCAATTCNNGNCANG

Sequence 1983

CCCCGCGTCCGTGACAATCGAGTAGTACTCCCGATTGAAGCCCCCATTCGTATAATAATT
ACATCACAAGGACGTCTTGGCACTTCATGAAGCCTGGTCCCCACATTAGGGNTTTAAAAA
AACCAGGNATGGCAATTTCCCCGGGACCGGTCTAAACCAAAACCCACTTTTCAACCGGC
TTACCACGGACCCGGGGGGGTATACTTACGGGTCAAATGGCTTCTGGAAATCTGGTGGGA
GGCAAACCACAAGTTTTATGCCCATCGTCCTAAGAATTAATTCCCCTAAAAATCTTTGA
AATAGGGCCCGTATTTACCCTATAGCACCCCTCTACCCCTCTAGGAGCCAAAAANAAAA
AAAAANAANAAAGTGCGGCCCGCTAGACTTAGGTCTAGGAGGAAAAAACCTTTCC
ACACCTTTCCCCTGGAACCTGGAACATAAAAAATGAATGCAAATTGTTTGGTTGTTAACT
TTGGNTTATTGGCAGGCTTATAATGGGTTTACCAAAATAAAAGGCCAATAGGCATCACC
AAAAATTTTCAACAAAATAAAAGGCATTTTTTTTTTAACTGGCATTCTTAGTTTGGNG
GGGTTTTGGTCCCAA

Sequence 1984

CCGAAAGAATATCTGTGTGCTTAGGGAGGAACTTTTTGATCTGCAGAAAAGCCAGAAGA
CATCTAGGACATCCATAAAAAATTCATCAGAGAGCATTTTACTACTGAGCTGCAAAGGGAA
AAACTTAAATGGGATATGAAAAGTGAAGAAAGTGATCATAGGGAGAAAAACCATTTCAG
ATGACAAGAGCACCTCAAAGGCAGCAGCCTCAAGGAGCAGCCATGGCCCCAGACTTGTGCG
CACGGATGCAGAAAACTTAATGGAGGAGGCTGAGGTGAGAATGGGAAGAGTTTTTAAAAA
ATAAAAGGGGAGCTAATATGTGAGGGACCAAAAAANNNNCANAAAAANAAAGTGCCG

TABLE 1
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GCCCGCTAGACTAGTCTAGAG

Sequence 1985

AAGCTTCCTGGTTCAAATGTGCCATTTCCCGGGTTGATGCTGCCACACTTTGTAGAGAGT
TTAGCAACACAAGTGTGCTTAAGTCAGGCGGTAGGGAAATCCCTCACTAAAAGCAGGAAG
AAAGGTTCCAATTCAAAAGGTGCCCAATGGATAGGAAGTCAAACAAGGAAAGGGTTAAAT
GGTTNGGAAAACCACAAATCAGGGTGGTGGGATTTGGGTGCTTACTTTTGNACAAAAAA
GGGTCCCCCCTGGTGGGTCTTTTGGTTCAAACAATTGGTACAAATTGGTAAGAACTTC
TTGTCAAACCACCTTAAATTTATTTTGGTCTTTGGAGGTTTTTACTTACAAAGGATGGA
NGACTATTGGGAATCCCCGGCATGCCCTGGAATTCCTAAAAGCCAAAGGGGGTCTTGTA
AGGCCAACGCTGCTTCTTCTGGAGGACTTTCATTTCTTTTCTGGATTGGGCAACACCG
TGCAGGCTCATGGACAAATCTGGTAGGGATAACAAATTCAGTGGTGGGANTTTCCACTTC
TTTTTCAAGTCCTTTCATGTTAAAAGGAATTTAAGAACACCCACATACAA

Sequence 1986

GNGTCGACCACGCGTCCGGAGCAGCAGCCATGGCCCTACGCTACCCTATGGCCGTGGGCC
TCAACAAGGGCCACAAAGTGACCAAGAACGTGAGCAAGCCCAGGCACAGCCGACGCCGCG
GGCGTCTGACCAAAACACCAAGTTCGTGCGGGACATGATTGGGAGGTGTGTGGCTTTG
CCCCGTACGAGCGGCGGCCATGGAGTTACTGAAGGTCTCCAAGGACAAACGGGCCCTCA
AATTTATCAAGAAAAGGGTGGGGACGCACATCCGCGCCAAGAGGAAGCGGGAGGAGCTGA
GCAACGTAAGTGGCCGCCATGAGGAAAGCTGCTGCCAAGAAAGACTGAGCCCCCTCCCTGC
CCTCTCCCTGAAATAAAGAACAGCTTGNCCGGATAAAAAATNAAAAAAAAAANAAN

Sequence 1987

GCCACGCGTCCGCAGGGAACGTGATTAGTGAAAGGAAGATAAACGTGGATGTTACTCCAA
AAGTTCGTTTAAATGAATGCTTAAAGAATTCAAATTTATCTGCCTCTCTTGTAATTTGGA
TCTCTTCTTAATGTACATAGTGCTAACATGAAGACCTTTTTCTGCACTATATGCAAACAG
GGTAACTAACTAAAACAAAGCCACTTTCATCTTCAATCCTTGAAGGTATATCTAGGTTT
ATGACAGTAATTGTGTTTACATTTATGGTGCCTAGTATTGACAAAATGTTATTTCCCTA
CATTAAACATGACTCCATAGACCTTTTCATTTGTGGGGTTTTTATTTCTATGATGTATA
CTGCCACTAACCTTNCAAAAATTACTTAGTATTGCAAAGTCAGGGAATCATCAGGGAACG
TTTAGCTTGGCCAAAATACTTGGTCTGGTTTTAAAAACCTGTGNAGGTCTACCAAACCT
GTTCAAGGTCTACCCAATTTAAGGGGCAAATTTGGGGGNAAAAAGGAAAAAT

Sequence 1988

GGTGTGACCCNCGCGTCCGCGAGTCCCGCGTTCTCTCCTTGAATCCACTCGCCAGCCCGC
CGCCCTCTGCCCGCCGACCCCTGCACACCCGCCCTCTCCTGTGCCAGGCAAGGTGACCCC
ATGGCAAGGCGCAAGCCAGAAGGGTCCAGCTTCAACATGACCCACCTGTCCATGGCTATG
GCCTTTTCTTTCCCCAGTTGCCAGTGGGCAACTCCACCCTCAGCTGGGCAACACCCAG
CACCAGACAGAGTTAGGAAAGGAACCTTGCTACTACCAGCACCATGCCCTACCAATATCCA
GCACTGACCCCGGAGCAGAAGAAGGGAAGCTGTCTGACATCGCTCACCAGCATCGTGGCAC
CTGGCAAGGGGCATCCTGGCTGCAGATGAGTCCACTGGGAGCATTGCCAAGCGGCTGCAG
TCCATTGGCACCGAGAACACCCGAGGAGAACCGGCGCTTCTACCGCCAGCTGCTGCTGAC
AGCTGACNACCCGGGTGAACCC

Sequence 1989

CGTCCGACAACATTTGGCATNAGGGTTGTATCTGTTGGTGGAGGACACAACGCCAAAAGG
AAATGGGATTTCTGGTTAGGCCTGCGGCTTGGCAGATGATTGTTATGGGAAAGACACTG
AGTCTGTTTAGGCAATTTCTTCTTTACTAATAAAGTGTTCTATTTTGAAGCAATG
CTGAGTTGTGGACATGTGTATAAACCGTAATGCTGTAAGTTAGGCCTCTCTTGTCTAGAA
TCTCAGCCTCTTCATACTCTCTCCCCCTTTTTGCCATATTATTTCTTATCACTAACT
ATATATTTTACCTGTCTCACTTACTATCTGTCTCTCCTCTCAGAGTGTTACTCCAGGAGG
GCAGAGATAACTGTTTAGTCCAGGCTGTGCCCTTTCGGTGCTCAAATAATGCCTGGGTGC
AAAATAAATATATCTTGAATGAAATAATGAAGTAATCTTTAAATGGTGCTCCGAGCATA
ATTTTCTATAGTAACACATAGTTTGCAATTAGTTGTCTCTTTCAGGGATAATGGAAATTG
GTCAACATAAGAAAA

TABLE 1

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Sequence 1990

NCCCCGCGTCCGAATTTGTTTTATGGATTGAATNATGTCTCCTCTAAAAAGATTTATTGA
TGTTCTAACCCCTCCATGTCTCGTATTGTAACCTTATTTGGAATAGGGTTGTTGCAGAAGT
AATTAGTTACATTAAGATGAAGTCATGCTGGAGTAGGGTGAGCCCCTAATCTAAGAGGAC
TGGTGTCTTATAGGAAGAGGAAAAATGCCACATGAAGAGAGAGAGAGATGCCCAAGGAGG
TGTCATGCTGCAATGAGGGCAGAGATTGGAAGTGTGCAGCTGCATGCCAAGGAACACCAA
AGATTTTCAGCAAACCTACTGGAAGCTAGGAAAAAGCAAAGAATCCCCCTAAATATTTTCAGT
GGGAGCATAGCCCTGCCAACACCTTATTTTCAGATTTCTATCCTCCACAACCTATGAGGC
TAAGCTCTGCTGTTTTAAGCTCCTCAGTGTGAAGTATTTTTGTCATGGCAGCCTTAGGAA
ACTAACACAATTTACAAACAGATTAAGTTCATAATCAAAAGACAGCCCTTGCAATTGGG
GTTTTTTTTT

Sequence 1991

CCGCGTCCGGCGGGTGAGCCGCTGGCGCGCCGGGCGGGGCGGGGGATTGGCTGAGGGCGA
CGCGAGAGAGGGGAGACCCGACTGAGGAGAGGACGGGGTGAGGGTCCCGGCCGAGGC
TAGCCTGAGGAGACCGGGGGCGGAGGGGAGACCCGGGCGCGGAGGAAAGGGATGGAGGA
GAGGAAGCCGCGGGGCGCCAGCGGGACCCCGGGCTGAGGGGAGAGGCGCCCGAGGCCG
GTGAAAAGTGCCGAGGAGACCTGGGCTGGGCTGGCAAGTCCCGGACCGGGGAGGAGGGG
AGCAGCCCTCCGATGTGAGGGATCGCAGAGGAATGAGCTTCGTTCTGGATTA
AAAAAAAAAA

Sequence 1992

GTCACCACGCGTCCGCAGCGCACGCCCCNTGCCCTGAGAACAGGAAAGGGCCCGGAAGGG
CTGACTCACCGGGCCGACNCTCACACGAAAATGGGATGCACTTTATTTGCTGGTGCAAAG
GCAGGTGAGGGTGCCNCTGNGTGACCGNTGGCCCTNCTGCCTGGNNGCGCTGAAGGGAA
GGAGCCAGTGAGCCTGACCCCGGGAGGGGCGGTCCCCGTGTCCGCGTTNGGCGGGGCC
CACGCGGCTCCCCANGCCCGGGTCTGGGGCCCCAGGCTTTCCCTGNCTNGNGGNCNN
CNTNCCNNGCTTTGGGNTNCTTGNNTNGGNNTTTTTAATGCCAGNNNTCANNACATAANT
GCNTTNTGAAAGAGGTTCCAGCTATCACTTGTAACCATATATATACATATATATTCTA
TCTACAAAGTGTTTTATTNCAAAGATNTTTCAACGGTGAATTCAGTCCCCGGCCGCCCTT
NTGACCATCTGTNCCCNGTCCTTGTCGCCCGCCCCGGG

Sequence 1993

TCNCCNCGCGTCCTTGATATTTGAGAAAAATCATGTGAGTCATTTTTCTGTTTCTCTT
TTCTCTTAACGATTATCACTGTAATCTGAATCTGAAAGGTAAACAATTAGTCAAAATA
TTATTGCCATCATTCTACCTGTGTTATGAACTACTTATTCATAGTTAATTCTCATTAA
ACTTACATTTCCATAAAGAAAACTCAAGTATTAATAAAAGAGACTTTACTGGCTTAAGAG
GGCTGTGAAAGATTTTTGATAGTGAATCATGACCCTAAGGGAGAGATTTGTGTGATAAAA
GTATTGTATATAATAGATCAGCGATTTTTGTAAGGCAAACAGAATTTGTAAGTTGGCAGA
TCTTCCTAAGTTGCAAAATGTAATGATGAGCTTGGTGGGAGAAGAATGAGTCGTTCTTGG
AATACCTATGTGCAGCCACTACCCATCTCAATGTACCTTGTTTGCATTCTTGGATAGCT
TGTATATGTAGTAGTTTGATGAATAATTTAAAGAAAAACACCTAAAATTTGAAAAATGAT
TGTAGGGATCAAAAAGGCAGATGAAATTAC

Sequence 1994

CACGCGTCCGCTGACCTGACCCNTTCCTGATCCNAGGCCNGGTGGTTGTCTTATTGCACC
ATACTCCTTGCTTCCTGATGCTGGGCAATGAGGCAGATAGCACTGGGTGTGAGAATGATC
AAGGATCTGGACCCCAAAGAATAGACTGGATGGAAGACAACTGCACAGGCAGATGTTT
GCCTCATAATAGTCGTAAGTGGAGTCCTGGAATTTGGACAAGTGTGTTGGGATATAGTC
AACTTATTCTTTGAGTAATGTGACTAAAGGAAAAAACTTTGATTA
AAAAAAAAAGTGCGCGGCCGGGCGCGCCGGGTGGGCGGCGAGCGGAGCCGGCCGGAGCGG
GCCGGGCA

Sequence 1995

TCCGACNAAGGAACAAAAGCGAAACACACAAACCAGCCTCAACTTACACTTGGTTACTCA
AAAGAACAAGAGTCAATGGTACTTGTCCTAGCGTTTTGGAAGAGGAAAACAGGAACCCAC

TABLE 1
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CAAACCAACCAATCAACCAAACAAAGAAAAAATTCACAATGAAAGAATGTATTTTGTCT
TTTTGCATTTTGGTGTATAAGCCATCAATATTCAGCAAAATGATTCCTTTCTTAAAAAA
AAAAAATGTGGAGGAAAGTAGAAATTTACCAAGGTTGTTGGCCAGGGCGTTAAATTCAC
AGATTTTTTTAACGAGAAAAACACACAGAAGAAGCTACCTCAGGTGTTTTACCTCAGCA
CCTTGCTCTTGTTTCCCTTAGAGATTTTGTAAGCTGATAGTTGGAGCATTTTTTTAT
TTTTTAATAAAAAATGAGTTGGAATAAATAAGATATCAACTGCCAGCCTGGAGGAAGG
TGACAGTCCAAGTGTGCAACAGCTGTTCTGAATTGTCTCCGCTAGCCAAGAACCTATAT
GGCCTTCTTTGGACAAACCTTGAAAATGTTTATTTAA

Sequence 1996

ACGCGTCCGAAGAGGTATATCCCATACCTTTTCCCCAAATCCCTTGTCATTAATTTTCC
AATTATGCTTCTTCCAAGTGCTGACCATCCAGCCAAACCATTGGCTACAGCCCATGAAT
CAGTATACAATGGCGCTACTGGTCATTTCTTTCCATACAAAGTGCAACCTGGTATA
CTCTTCAAAGTTCTGCCACTGGGAAGATTGCCTTCACCACTGTCCTTCAGGGATAGGG
GCTATAGAGCTGCAGCTGTCCACTTTCAGGTGGTGCCTGCATATCGTGCATAACCATCTG
TGAACCAAGCCCTAGTCTTGTCTTCTCTGTCAACTGATCATAGGGAACCTCCCATTGAGG
CCATCAGTGCAGGCTAAGGGAAAGAAGGCAAGGTGGCAGGAGTGGAGACCATGGACATTT
GAGCTACTTTCTTAGGTAACCTACTTGTGTCTTCAGGACCTGCTCAAGCCAGATCACATA
TATACCACTTTAATT

Sequence 1997

CGCCNCGCTCCGCTACACTTAAGGATGAAGAGAGGAAAAATCTACAGTGTAGGCACAGA
AATGCCTAGAAATGAGAGAAAAAAGAGGAGCGCATACTGCCTCAGAAACACCAAGA
GTAGTTTGGGAAGAAAGGAGTCAACAATAACAATATCAAAGGAATGAATGGCCAACAGT
GTAGCCTCAAGTAGGGTAGTGTGAGTAGTTGATAGACCAAAATCCTCAGCAAAATACTA
GCGAACAGATTCAACAGCATACTGAATGGATTATACACCATGGCCAAGTGGGATTTATCC
CAGGAATACAAAGGTAGTTCAGCATTAGAAAATCAATCAATGCCAACACACCTCATTAAC
AGAAAAAGTAAAGAACTGCATACATGATCCCACAATTGATGCTGAAAAGGCATGACAAAA
TCCAACATGCTTTCATGATTTAAAAAAGGCAAGGCAAGGCAAGGCAAGGCAAGGCAAGG

Sequence 1998

CCACGCGTCCGCGACACTTGACCCAGAGATCACGCCACTGTCAGCTGCCCTGGCTCAAAC
AATTGCCAGGGAATGGCACCTCCACCTGTCTCCATGGCTCCTGTGGCTGTATCTGTGGC
TCCTGTGGCCCTGTGGCTGTATCGATGGCCCAACCCTTGGCAGGAATCACAATGAGCCA
CACCACCACTCCCATGGTGACTTACCCTATCGCTTCCAGAGCATGCGCATCACGGCCAT
GCCACACTGATGGGGCTAATGGACACTCCCTGGTATAGCCTCGCAGGGCTGGGGTCAAG
GGGCCCTTGGCCACTCACCTAGCCTTCCCATCCCTGTCTGAAGGGCTCCCTTGAGAACT
AGGACAAGAGACTACAAGGAGTATGTCCTGAGGAGGGGTTGGGATGGTGTGGTTTTCTCT
CACCTCCCTTTTATGAGGGTCCTCTTGTCCATCTTCAAGCCTCACAGTGGGGGGCTT

Sequence 1999

NNGGCAGGAGAGGTTCAAATGCATTGCATCAACCTACTATAGAGGAGCTCAAGGTAATGG
GGCTGGGTGAAGTGGGGTAGGTGGGTCTCAGAGTGCACATGGCTTCTCATATGGAGCTGG
AAGGATTGGGGAATGAGCAGTAGTGTCTTCCCTGTCAACCTGGGGCTGTTTNTGCCACT
CTTCCAGCCATCATCATTGTCTTCAACCTGAATGATGTGGCATCTCTGGAACATACCAAG
TAAGTGAGCATCCTGCAATATAATGGGAGGCTCCG

Sequence 2000

ACGCCTCCAGCCTGGGCAATAGAATGAATGAGACTCCATCTCAAAAAATAAATAAATAAT
AAAATACTGAGAAAAAGAATCTTTATTGTTTCTGTAAAATAAATTTTCTTTTAGCAAA
GCTCTTTTCCCTTTGACTCTCGCCGCTAGATTTCCGTACCAGGACCACACATTTTAA
GATGCTCCTCACCGCCGTACAGCTCCTGTACAGCCAGAAAGCTCCGTGCGCACGAAGCT
CATCCAGCTCCCGGTGGTCTACGTGATGCTCATGCAGCACTCGCTGTTTCTGCCGACTCT
ACTGACGTCTGACGGAGAGGAGAGCCCGGACAGCCAAGTAAAAGGTGACCCCTCACCCCA
GCCCTTCCATTCCGTATCCAGATTTTATCTCCTGATTTCTTA

Sequence 2001

TABLE 1

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CCCGCGTCCGCCGAGATGGCGCCCCTGCACTCCAGCCTGGGTGACAGAGTGAGACCTTGC
GTTTAAAAAAAAAAAAAAAAAGGAAAAGGAAAAAAAAAGTTCTACTGTGGGTAAAATGCTATC
ATGCTATCAAACAGCATCACATGCTACAGAGAAGTCTTGTAAGGATGTCAGTGTGGCA
AACTTCATTGTCTTTAAGAAATTGCCACAGCTATCGTAATCTTCAACCACCACCACCT
GATGAGTCAGTAGCCATCGTTAACGTTGGCGTAAGACCTCCACCAGCAAAAAGATTGTT
AGCATTTTTTTAGCAGTGATGTATTTATCAATTATACATAATGCTATTGTACACTTCTTA
ATAGACTATGGTATAGTGAACCATAATTTATGCACTGGGAAACCAACAAATTCATGAGA
TTCGCTTTATTGTANTTGCTCTGGAATTGAGCCTGCCCGTGTTTCTTGAGGTATACCTGT
GTATTAGGTATGTTCTTGATATATAAACCCCATTTTTTAGGGTAGGAACTAANGCTTA
GAGTTTGAGCCAATTTTTCCATA

Sequence 2002

CGTCCGCACTGTTCAAACCCTGTCATGCTTTAAACTGATGCGAGATGATTTTGTTTTT
GCATAATCAATACTTAAGGGTGCAATCAACTGTTAGTAATTGTGCAGTANAGTAAAGCCC
TGTGGTGTATCAACTACTAGTTAAGAGTCTCAGTTGATTTCTGTAATGTTTGACCTAATA
ATAGCCCGTTTCGTCTCTGACCCAACAGAGGAAGCACAGATCAAATCACCTTGGAGTGGT
CACCAGGGGGACAGGGAGCCCCCACCATGTATCAATGGGTGATTTATGATGCCTCTG
CCCTTTGGCGAGTGAATGGGTTTCCCATAGGGGAAGTTNGGCCTCCCTCCGTGAGCTTTG
GAAAATGTTTTCTAATAGACACAGGGGAGGCCAGTTTTGTTTTNANAGCAATTATTTT
TTCCCAAATTCNTCTGTTTTGGGNGGTNGGAACCTGNGGGGCCCCCGGGGTTTCTGGTTT
TCCTTTTNCNGCNGGAAAATTCTCCTGGCTAAAAANANTCCCTTTTTTTTTNGGTTTNC
CANAAGCCCTTTTATAAATGCANNATANTGAATNGCTTGGGGAACNNAATAAANTTT
TTTTTCCCANTCAAAAAANAAAAAAAAAAAAAAAAANGGCGGGGCCCTTANA
TTTTTTAAAAAAAAAAACCCCC

Sequence 2003

TTNCCATCCCTCAGGTGCTGAGAACCAGTGCCTAGAGAAGGGCAGGAGGAGGATGACG
ACGATGAGGAAGACGATGCTGACGAGGAGGCTCCCAAGCCCGACCATTTTGTTCAGGACC
CTGCAGTGCTGAGAGAGAAGGCAGAAGCCAGGCGCATGGCCTTTCTCGCCAAGAAAGGGT
ACCGGCATGACAGCTCAACAGCAGTGGCCGGCAGCCCCGAGGCCATGGGCAGAGCCGCG
AGACAACCCAGGAACGCAGGAAGAAGGAAGCCAACAAGGCGACAAGAGCCAACCACAACC
GGAGAACCATGGCCGACCGCAAGAGGAGCAAAGGCATGATCCCATCCTGAGACCTGGTGC
AGGGCCAGTGGGGAGGCAAGC

Sequence 2004

TNCACATTTTCTCCTAAGCACATGGGTCACTCTCAAGGAGAGACCATATGTTAGGTCAC
AAACATTCAAAAAATTGAAATATTATCAAGCAACTACTCTGACCACAATGATGTAACCT
AGAAATCAAAACCAAGAGGAATTTAGAACTATAGAAGCACATGGAAATTAACAATCT
GTTTCTTAATGACCAGTGAGCCAATGAAAAAATCAAGAAGAAATTTGCAAATGTTTGAA
AGAAGTTATAATGGAACACACTATACTAAACCTATAAAACAGCAAAAGCAGGACTAAG
AGGAAAATGTATAGCTATTAAAGTGCCTACATTTTTAAAAAATGAAAAAATTTAGATAA
ATCACTTATCTATGAATTTGAAAAAAAAAAAAA

Sequence 2005

CGGGAAGCTTTNTTTAATTAAGCTGAAACCGAAGCTTTAATTTAATTTAAATAGTTCC
ATGTGCCCATATTGGACAGTATAGCTCCAGGGTTTATTAACCACCATTCCTGGTGATAG
GATAGAGCCCAGCACAACTAATCTGGGCAACAAATCAAAGGGCACAAGTCGCATGTAGG
TTCCAACTCAGTACATTTTAGAGAAAAGGAGTTTGATTATGTAGTAGAAGGAAGAACTG
CCTGGTGGGACTCATGATCTTCCTTTAAGAGCAAGGCTCAAAGACCTGGGGAGTTTTGAT
TTGATGCTATGATGTCTCCTGGGGCTCAGAATATTATGAAATGAGGAGTGAATCTCTGAG
TGAAAAGAACTCAAGCTGCTTGTTCATTGCGGAATGTCTTAAGAGGTAGAGAGGCGTC
TGTTAAGTGGCTTTGTATGAAGTTTCAGAAGGTAAGATGAGCC

Sequence 2006

NCATTTAACTGTAATAGATATAGAAGTATCCTTCAATAACCAACAACAAATGCTTGTTT
CCAACAGGCTCTGATGGTTGTATATANGGAAACCTTGATACCAATACGTCCAGCTGACCC

TABLE 1

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AGAAAAAATCAGAGCTTAGTTAAATCACTGCTGCTCAAGGCTGTTGTATCTGGNNACGC
TCGAAATGGAGTTGCACTCACTGCCCTGGATCAGGATCACGTCGCAGTCCTAGGAAGTCC
ACTAGCAGCTTCTAAGGGTAACTGACATCCAATTCATTAAGAAGGCCTTTGTATGTTCC
TTCACGGTGTACCTTTTAGTCTTCCTTTNTTTTCATTTATTATTACCCAGACTAAT

Sequence 2007

GTCCGGCCCTGCACTAGGGACTGGGGAGGACATGGAGAATAATATATGTACCAGCACAGA
CAGACAGGCAGCTTCTGGAGCCAGACTGTCTGTGTGATCTTGGGTAAGTAATCTAGCCTA
ACCATAGAGATGATAACAATTGTACCTGCCACAGGCTCATGGGGCTATTGTGATGGTGAA
ATGTAAAGATGTAAAGTATAGAGAAAGGATGTAAACTGCCCGACATATAGTAAGGGCCA
TTTAAAGATGCCTGTTATTGTCCCTCTTCTTGAGAGCATATTAAGGGCTCAAATCTAGC
CAGAGTCTGGCGGGTACAGAGGTAAACAAATAATGGCAGGTTGGTTAAGTACTGGACACC
AGTGATGTCCAAGGTCTCTAGGATGCCCTGGAGAAATAATGAACCTCTTCTAAGATTGTTT
GGAAGGGGATTTATAAAGGACATCTAGGCTGGGTTTTGAGTGAGGTATGGGGAGTTCGCT
GGTCAAGAATGTANGAATTACAAAAGCANAAAGTGCCTTATTTNAAAAAAAAAAAAAAAA

Sequence 2008

NCCCCGCGTCCGGAAAATATTTAGAAAAGCACCTTGAAGATTAGTATTTTTATGTAACCTT
CTGTTGGAGAGATGTCTTCAGGAGACTGAAGTAGAAGAGCGACTGTCAAATGGAAAGTC
CCAGAGACATCCAATTTATGTAAATCAACATCACCTGAATTCAGAATCTCATCCAGATTT
CAACAAAGACTTCTGAATGCCAACAAAGAAGAGGACTGAATTTACAGACTCTCACTCTAA
CAATATATGCTGTTCAATTTGAAAACAGAATAAAATATTTTGGCAGAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Sequence 2009

AGAGTGTCAGCTGGCTTTCCTCACTTGGGAAAAGGGTACTGCCAGTCTAAGCAGCCTC
CTCTGTACTCAGCCAGGACACCCAGCGCTGGGACCTGTTTGTGTCTGTTTTGCTTCCTT
GGGAACGGCACAGTCACTCACCTGCCATTTGCGGAAATGACCTGGTGCATTTGACTGT
TAAGCAATGCGTTATTGCTGTAGTCAAGGTTAGTGCAAGCAAGGAAACATTCAGTAAG
GTATTTGTTTCCATTTTCTGTCTGTGCTTCTGTGCAGAACTTGCTAGGACTTTAGTGGCC
AATAAAAAAGAAATCTAGCTTGATCGACCCACGCGTCCGGTAATGATTGATGAGGACAT
GACTGCCCCAATTAGCATGGCTGATGTCAAGTTCTCTTCCAATGTCCTGGTGCATGTA
TGCACCTGCCTGGGTAGCCCCGAAGCTCTGCAGAAGAAGCC

Sequence 2010

GCGTCCGACAAACATAATGATCCGTGACAGTGACCTTAATATATAAATGTGTGTGTTGTG
ATTGTTCTACTGACCAGCCATTTCTGTCTCCCTCTTCTTATGCCTCCCTGTTAAATTAG
ACACAACAACATTGAAATCAGACCAATTAATAACCCTACAGTGGTCTCTGAGAGAGGCTA
ACAGATAATCCTCTTGCTAATCAGCCAAATTGTGAATGCAAAGGAAAAGTTCTCAAAG
GAAATTAAGAGTGCTACTCCAGTGAACACATGAATGATAAGAAAGTGAAACAGTCCGGGC
GTGGTGGGTACGCCTGTAGTCCCAGCACTTTGGGAGGCTGAGGTGGTGGATCACCTGA
GGTCAGGAGCTCAAGACCAGCCTGGCCAACATAGTGAAACCCTGTCTCTACTAAAAATAC
AAAAATTAGCTGAGTGTGGTGGTGCACACTTGAATCCCAGACACTCGGGAAGCTAAGGC
CGAGAGAATCACTTGAACCCAGAGGTGGACATTGCAAGTGAGCTGAGATTGTGCCACTT
GCACTTCAACCTGGGTAACAGAGAGAGACTCTGTCTCAAAAAAAAAAAAAAAAAA

Sequence 2011

GTCTATTAACATACGGAGCTGAATCTGCCGCAGCTNGAAATGCTCAAGAACCAGCTGGAC
CAGGAAGTGGAGTTCTGTCCACGTCCATTGCTCAGCTCAAAGTGGTACAGACCAAGTAT
GTGGAAGCCAAGGACTGTCTGAACGTGCTGAACAAGAGCAACGAGGGTATGGGGTAGGCG
GGTGAGGGTAACCTAAAGTGGCGAACCTGCTTCTCTCGTCCCACCTCCTAACCCAGTTTT
TCTTACCTGAAACGAGAAAATCCATTACATATCGTATACCGCTTCATGAACCTTTGCAT
GTTGCCTGCCTAGAATTGAAAAGTACAGGACATTCCTCTGCTCCTATTGCCCTGTTTCC
GTTCTTTTCACTGTCTGTGGGTGCTGTGCCCTGTTGGAACCTCTTTAACGTCTTACC
GTTGGAGCCGCTTACCTTCCCAGGTGTTGTCTTCATTGGCTTTCACAAGGGAAAA

Sequence 2012

ACGCGTCCGCACACCCOCAGGTGCCGCGCTGGCCCCCAGGCGTGGTGGCCTGCACGGA
GGGGACCACTTACGTCTGCTCCGTCTGCCAGCAAAGTTTGACCAATCGAGCAGTTCAA
CGACCACATGAGGATGCATGTGTCTGACGGATAAGTAGTATCTTTCTCTTTCTTATGA
ACAAAAACAAAACAAACAAAAACAAAAACAAAAAGCTATGGCACTAGAATTTAAG
AAATGTTTTGGTTTCATTTTACTTTCTGTTTTGTTTTGTTCGTTTCATTTGTACT
ACATGAAGAACTGTTTTTGCCTGCTGGTACATTACATTTCCGGAGGCTTGGGTGAATAA
TAGTTTTCCAGTCTCCCTCGGATGGTGGCCTTAAGGCCTGGTAGTGCTTCAAGAGGTCC
ACTGGTTGGATCTCTAGCTACTGGCCTCTAAATACAACCTTCTTTACAAAAAATCTT
TTAAAAAAAAAAAAAAAAAAAA

TABLE 1

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Sequence 2017

CGCTCCGCAGCATCAAGAGTTATTTTCTGACTGTCAAGTTTCAACATTCAAGTCTGTCC
CCAACAGGCACCACACCGGGGTGGACTCCCTGTGTAACCTCTCGCCACTGGCTCGGAGAG
TAGACAGAGTTGCCATCTATGAGGAATTTCTGCGGATGACCCGGAATGGTACCCAGCTGC
AGAACTTCAACCTGGACAGGAGCAGTGTCTTGTGGATGGGTATTCTCCCAACAGAAATG
AGCCCTTAACTGGGAATTCTGACCTTCCCTTCTGGGCTGTCATCCTCATCGGCTTGGCAG
GACTCCTGGGACTCATCACATGCCTGATCTGCGGTGTCCTGGTGACCACCCCGCCCGGCG
GAAGAAGGAAGGAGAATACAACCGTCCAGCAACAGTGCCCAGGCTACTACCAAGTCACAC
CTAGACCTGGAGGATCTGCAATGACTGGAACCTGCCCCTGCCTGGGGTGCCNTTTCCCA
ACCAGGGTNCNAAAANAACCTTGGCTGGGGCAAGAAATNAAANCATATTTGGTCCGAAAA
AAAAAAAAAAAAAAAAAGGGCCGCGCCCTTNAACTAAGTCTAAAANAAAAAACTTTCAAAA
CCTTCCCTGGAACCTGAAACATAAAATGNATNGCAATGGTGGNGGTNAACCTGGGTTA
ATTTGGCANCCCTTTTANTTAAAANTTGGGGGGGGGGTT

Sequence 2018

CGGATCAAGACCATCCTGGCTACAGTGAAACCCGTTTCTACTAGAACTACAAAAATTA
GCCGGGCGTGGTGGCAGGCACCTATNGTCCCAGCTACTCGGGAAGCTGAGGCAGGAGAAT
GGCGTGAACCTGGGAGGTGGAGGTGCAGTGAGCCAAGATGGCACCAGTGCACTCCAGCCT
GGGCGACAGAGGTAGACTCTGTCTCAGAAAAAAAAAAAAAAAAAAATCAGTCACTGGAT
TTGGGCCCCACCCTACCTNCATATGACCTCATGTTAACTTGATGACATCTGCAAAGACCCC
ATTCCCAAAAAGGTACCTTCACCAGTAAGTNGGGGGTTAGGACTTGAATATAGCTTTTT
GGTTGATGTAATCAACCCACAGCACTGCCTTTTNCATTCCATGTTATGTTTTTGGAGAT
TTTTGAGATTTGCCAAATATATGAAGCTATAAATTATCAGNGAAAATAAATAATTTCAA
ATNTAAGCTGTTGAAAACCTCTAAATTATTTTAAAGCCTTTAAAAGAAATGGATTTTTGNA
GACAAGGNCCCGNNNGGGCTTCAATGCCTNTAATCCCCANCACTTTGANANGGCTGATT
GGGNGNGNGGATTCCACCTTGAGGGTTAGNGGNTTCAAAGACCAAGCCTGGNCNCTAN
CGGNGGTTGAAAACCCCTGGTNNTTCTNACCCTTNAAAAAAA

Sequence 2019

GTTTTTTTATTTCTACTGTCAAATGATGTGCAAAACCTTTTACTGGTTGCATGGAAATCA
GCCAAGTTTTATAATCCTTAAATCTTAATGTTCTCAAAGCTTGGATTAAATACATATGG
ATGTTACTCTCTTGACCAAATTATCTTGATACATTCAAATTTGTCTGGTTAAAAAATAG
GTGGTAGATATTGAGGCCAAGAATATTGCAAAATACATGAAGCTTCATGCACTTAAAGAA
GTATTTTGAATAAGAATTTGCATACTTACCTAGTGAACTTTTCTAGAATTATTTTTC
ACTCTAAGTCATGTATGTTTCTCTTGATTATTTGCATGTTATGTTAATAAGCTACTAG
CAAAATAAAACGAGTTGACCCACGCGCTCCGGACACAAGAAAGGAATATAATTCATACAC
TATTGCATTTTAAATAAATCTTTGAAATTTGCAGAATTAAGATTGTATTGTGATTTTC
GGTTAAATGATAATTGAATGTAATATTTAAGATGCAGCACCATATTTTATAACCCAGCT
TTAGGCATTTCTTCATATTTTAAAGGAAACCCCCACCTCCTTCTTTAANGGCGCTTCT
TGCTCTCTGAAATGCCCTGCTAAATGCCTTCTCTTAATTATTTGGAATAANGGTAGGTT
TTGGGGGAAAATTTTAAAAAAAAAANGGGGGGNNAAAAAA

Sequence 2020

AATTTTNNATAATCTGAATTATCACAAAAAGATAAGGATTTTTAAAGTTATTTGGAGGGA
GTGTACACATTGTTTATTTAATAGTGAGGGCTATTATACAAGCNGGTCNATGTAATAA
TCCCTTTATATGTATGAGCATAGTTAATTTGGTAAACAACAGACAATTACATACTGTGAT
CATAAGGACTTTAGTATCAGTTACCATATAGCAGGTACTCTTTAGTCAGGATATACCTAT
ATAGGTGCTAAATTAATAATCAACCTTATATCTCAAATTTACTTCCTAGTAGAGTGTAAC
GCTGCCATAATTGCAAGCCTAATTATGGGGTTGTCCATACTGCAGTCCCATCAGTACTCA
TACACCAAGGGTTCGGGCCTGTGAAGACTGGAAAAAGAATAAAATATCTTTGATTGAGA
TACTACAAGCAAAAATGACTTTCTGGCTACCATTACTGCAAGAAACAAAACCTCAACTGAA
AACAATATGTAGCAATTAAGAAGTCTCATTATCTTCAAAACACAC

Sequence 2021

CCCGCTCCCGGAACCTTACCCATAACCCTAATGATGCAAGTCATATGGGGGAACACTT

TABLE 1
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TGTAAATGGTCAGGATAAAAACCAAATCTGGGTGCCAGATCCCAGCACTACTTTTTATTA
CTGGAGAAATGGGGGGGATAGAAAATCTACTTTGAATTATTTAGTTTTTTTTTAAAGAGT
GGGTGTGTGTGTGCTTCTCCACCTTTCAAGCATTTATAGAACATGCTGCCCCACATAC
AAAGTCAAGACCACTTACTTTTATGTGACACTAGTAGTTTGGGGTTAATGGTTTGNGTAA
AGAACAAGCTGCATATGAGTAAAGGTTACCCCAACCCNCAGTGAGGANGAAAGATGTTCA
CATACTGGGAAGTGCCTGNCAAATAAATNTGGCCCTATTGGGCTCTGTTTAAATNNGG
AAGNGGGCAAAAGTAACCTCTTGCTTTGGGGCAACTATTTGGNNTCAAATTANAAACCT
TTTAGACCCAAANTTNANNNNNNNNAAAAANNNGNNNNNNNANGGGGCCGNCCTNTNGAC
CTTAGTTTTTANANAAAAAAAACCTNCCACACCTTCCCCTTGGAACCCTGAAACAATAA
AAAGGAAANGCANNTGGGGGGNGGGTAAACCTTGTTTATTGGCACNCTTTATAAAN
GGNTTNCCAAAAANAAAGGCAATTTGCCTTCCCAAANTTTCCCAAANAAAAAAGGG
CCTTTTTTTTTT

Sequence 2022

ACCACGCGTCCGGTCTGCAGAGGCCCGGGCCTGGGCACAAAGGGAGAGAGGCCTCCATTG
TCCCGCAGGGGCCAAAATGCAGACCGTGCATCCCCGGTGACCTCGGGGACCGTNCCTCTGA
TCAGCAGGATTTTCTTGACTCTGGGGTCTTGTCTGCTCAGGCATCCCTGCCCTGCTC
TCCTTGAGGGCCCTCAACACTATCTTCCCTGGACACAAGTCTGGGGACAGCCGGGTGTTG
AGGACCCCAAAGGGGTGACTACCTGCTCCTGGGCCCCACAGAGTCTTGTGCTCAGTGTA
GTGGCTGAGCTGGGGGATGCCCTGGAATTCGGAGCACACAGCACTGGCTTACTGTGGTAC
CTGTGCAGTGAAATTGGAGACAGAATCACCAGGATGGAACACAGGTCTTGCAAGATCACG
GAAAACCTTTAGAGTTGTCTTGACACCACTTGATGTTGAGTGTCCGGGTGTTGTAGGA
TGGCCTGCACTCAGTCCAGGGGCAGG

Sequence 2023

CGCGTCCGCTTGACCCTGTATTTGGGAGTCGAACGGAGAATGGAACTGAAAGTGAAAA
TCAGGAAAAGGTAATGGAAGAAGAAAGCACTGAAAAGAAAAAGAAGTTGAAAAAAGAA
ACGGTCACGAGTTAAACAGGTGCTTGACAGATTTGCTAAGCAAGTGGACTTCTGGTTTGG
GGATGCAAAATCTTCACAAGGATAGATTTCTTCGAGAACAGATAGAAAATCTAGAGATTG
ATATGTTGATATATCACTACTTGTGTCTTTTAAACAAAATGAAAAAATTGACTACTGATGG
GAAGTTAATTGCCAGAGCATTGAGAAGTTCAGCTGTTGTAGAGCTTGATTTGGAAGGCAC
CAGAATCCGGAGGAAAAAAC

Sequence 2024

CGCGTCCGCAGACTTTCCCTCTGCAATAAATCCTGTAAACAAAATTGCACTCGCACCCCTT
ACGTTTATACAAATTTTTAAATAAATAAATACTAGAAAANGCAAGAGGAAACCAACCCA
AAATTATTAGAAGAAAAGAAATGATAAAGATTGGGGCAGAAATTAATGAATTGATACTAA
AAATAGTACAAAAGATGGATGAAAGAAAAAGTTGTTTTTTTTTTTTTAAAGATAAGCAA
AATCAACAAACCTTTAGCCGGACTGTAAAAGAGAGAATATCCATATGAATAAATCAGAG
ATGAAAAAGGAGTCATTACATCTGATAACACAGAAATTCAAATATTTTAGAGACTATTA
TGAGCAACTATATGCAGTAAATTGAAAACTTAGAAGAAATGGATGAATTCCGAGACACA
TAAAAACATACCAAGATTGAACCATGAAGAAATCCAAAACCTGAA

Sequence 2025

AATTATCCTGGTGTGGTGGCGTGTGCCTGTAATCCCAGCTACGCTGGAGGCTGAGGCATG
AGACTCGCTTGAATCCAGGAGGCAGAGGTTGCNTTAAGCTGAGACCACACCACTGCACTG
CAGCCTGGGTGACAGAGCAAGACTCCGTCTCAAAAAAAAATAAGCTATTGATGGGCTAT
ATATTGTTAAGCTATAGGGTGTGGTTACAGTGTCCAGTGTAGCATTGNTCGATTAATTTA
TAGCCTCTTGTGGCAACAGCAAGCAGNTTCCAGAGATGAATACACAGCTTGAGTAGGCAG
GGGGGAGTAGGACATGACGGCTGCCTCATCTTAACACCTTGGGCCTGATAATTTAAAGG
ACTCACAGTCCTCAGATAAACATGACTTTCTTTTCTCATGAGGAAACANANAAGGTGGCT
AAAGGGTATNTCTTTCTCTCATGATCCCAAACCTATCAGGTTT

Sequence 2026

ACCNCGCGTCCGGGTGCTGTACCAGACCAGAGGCCAGCTCCATGTCCTCCGCGTCGGCAA
TGATACCCACTGCCAACCAACAAAAATTGGCTGCAACCATCCCCTACCAGGACCCGGCCC

TABLE 1
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CTACAGGGTGAAGTTCCTGGTGATGAATGACGAAGGACCCGTGGTGAAACCAAGTGGTCC
AGCGACACTCGCCTGCAGCAAGCCCAGGCACCTTCGGGCTGTCCCCGGCCCCCAGAGCCCG
GGCACCGTGGTCATCATCGCCATCCTGTCTATCCTCCTGGCCGTCTCCTCACGGTCTCTC
CTGGCTGTGCTCATATACACCTGCTTCAACAGCTGCAGGAGCACTTCCCTATCAGGCCCA
GAGGAGGCAGGGAGTGTGAGAAGATACACCACGCACCTCGCGTTCAGCACTCCTGCCGAG
GGGGCTTCTGAGGGGTTCCAGAGGGGCCACGTGTCCCTCCACCTCCTCCCTGGCCCAGG
CTGCAGAGCCTGAGCTGGGACACGCCCTGAAGCTTCTGGACCCTGAGAGAGATTGGTTCT

Sequence 2027

GCTGCTAGAAAAGGTTAGACTAACTGGGAGTTCATAATTTGTCTTGGAGATTTAAGAAAG
TTTTGAAGAGGTTTTCTGTGTTGAGATGAAGAGGAAGATTGAGACAAAGCACAAATGGAG
AGTAGGGGAGAGAGCACTTCAGAATGTTTGAAGGTGCTAAGAGGAAGTGCTTGACACACG
GGAGGAACTGAGAAAGAAGGCTAGGGCCATCGGCTGGAGGGACAGGACAGGTGGAGATGT
AAGCATGGGCCTCCAGACCATGGTAAGGCCACTGGATCTTTACTTTAATGCATTTGTGCA
TGTGATTAAAAAAAAAAAAAAAAAAAAAA

Sequence 2028

CCCCGCGTCCGAAAAAGACATATGTACAAGTCTATTTCTATAGCACTATTTGTAATACC
TAGCACTATTTGTANTATCTAAAGACTGTAAACAACGCAGGTGCCACAAAGGGAAAAATG
GTTTGACAAACTTACGAACATCCTTTTAAAGGAGTACTAGACAGGTCAAAAAGGAATGAA
GAATGTATATATTACTATGGAGTGAATCTTCAGGGTATATGACTAAGTGAAAAAATGCAA
GGTGAAGTANTATGTAAACATATGGTACAGTTTACTTAAGAGAGAAATACAGATGTATATA
CACATTACCTAAAGCAAAATGAGGACCCTACTGGGCTGCCATCCCAGCTGGACTGCTGCT
GTGGAGCTCAGCATCAAGTACT

Sequence 2029

CGCCCCGCGTCCGGAGAGAGCTGTCTTTGCAGTACTAGGTTTCATCAAACCTTGTTTTT
TCAGTATGGTAGGTTTAAAAATGGGGATACATTTTTGTTTTATTTGCATTTTNNATAT
TTTCTTAGGTTAGTTGGCTACTTAAATTTCTTTTTCTGAAAACCTTGATTTATAGCCTT
TTAAAATTTCTATTGACTTGCCTGAACTATTTGTAAATTACAGAAATTAGCCCTTTGTGCG
TATGTGTTGCAGGTGCTTTTCCAGTTTGCCAGTGGTCATTTCATTTGGTTTATGGTACTT
TTGATAGACCAAGTCTTTGACTTTTATTTAGTGAGATTTATCCATCTTTTTCTGTGTGG
CATCTTGGTATTATAGCATTAAATTTCTTTTCT

Sequence 2030

CCACGCGTCCGGTTGGGACGGCACCAGGCGAGGTGTTGAGTTGGCTCGGCTCAAGGTTCT
TCGGGGTGTGAGCTGGCATGAGGACCTGTTGGAAGTGGGATCCAGGCCTGGNGCAGNCTC
CCAGCTGCCTCGATTTGTGCGTGTGAACACTCTCAAGACCTGCTCCGTTTATGTAGTTAT
TTCAAGAGACAAGGTTTCTCCTATCAGGGTCGGGCTTCCAGGCTGGATGGAGTGCCCTGG
CGCGATCTCGGCTCACCGCAACCTCTGCCTCCTGGGTTCAAGCGATTCTCCTGCTTCAGC
CTTCTGAGCAGCTGGGATTATGAAGGGT

Sequence 2031

NCCCCGCGTCCGGCTCAAGGAGGTGATTAAGAAGTGTGTAATTTAGTATTTTAAAGATG
TTTAGAGTTTTTAAAACTTACGTTGTTGCTGTCATTGTATTTAAATAGTNATAAGAATA
TAACTGATATAAGTAATTTTTTTTAAATCTTCAGATATAATGAAGATCTGGAACCTTGA
AGATGCCATTATACAGCCATCTTAACCCTAAAGGAAAGCTTTGAAGGGCAATGACAGA
GGATAACATAGAAGTTGGAATCTGCAATGAAGCTGGATTTAGGAGGCTTACTCCAACCTGA
AGTTAAGGATTACTTGGCTGCCATAGCATAACAATGAAGTGAAGTGAAGTGAAGTGAAGTGA
CAGATAATCTATCTACTTAAACATGTTTAAAGTATGTTTTGTTTTGCAGACTTTTTGCAT
ACTTATTTCTACATGGTTTAAATCGACTGTTTTTAAATGACACTTATAAATCCTAATAA
ACTGTTAAACCCAAAAAAAAAAAAAAAAAAAAA

Sequence 2032

CGACCNCGCGTCCGGCGTTCTACCTTCCGGCCCGTGTCTATCCGCCGCTCCACCTTC
CATNCGGCGCCGGCTTTCGGCGCGACGGTCGCCGCGTTCCATCGTCGCGCGGCCCTTCGG

TABLE 1

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GCGCCCGAGCCCGCAATGTCTGGGCCCCAACGGAGACCTGGGGATGCCGGTGGAGGCGGGA
GCGGAAGGCGAGGAGGACGGCTTCGGGGAAGCAGAATACGCTGCCATCAACTCCATGCTG
GACCAGATCAACTCCTGTCTGGACCACCTGGAGGAGAAGAATGACCACCTCCACGCCCCG
CTNCAGGAGCTGCTGGAGTCCAACCGGCAGACACGCCTGGAGTTCCAGCAGCAGCTCGGG
GAGGCCCCCAGTGATGCCAGCCCCTAGGCTCCAAGAGCCCCCAACCGGGACCCAACCCTG
CCTCCCTGGGCTAGGCTCTGGCCTGGGCACTCACCCCCTGGCTTAGACACCTTCTCAAGG
GCTGGCCTTCAGGGACCCCTGGTGGGTCTGCTGCCTGGGCCACCCTTCTGCCTGGGCCTN
CCCTTG

Sequence 2033

CGACCACGCGTCCGCTACCTCAAGGNCCTGGGCACCGAGCGGGCCTACAAATCCGCACTG
GACTACACCAACGAAGTCTGGGGATTTTCATTGACCTCCANAAGAAAGAGAAGGAGGCG
CATGCCTGGCTGCAAGCAGGGAAGATCTATTACATNTTGCGGCAGAGCGAGCTGGTGGAC
CTCTACATTCAAGGTGGCACAGAACGTGGCCCTGTACACAGGCNACCCCAACCTGGGTGCT
GGAGCTGTTTGAGGCGGCNTGNAGACATCTTCTTCGACGGGGCCTGNGAGCGGGAGAAAG
CTGTGTCCTTCTACCGGGACCG

Sequence 2034

GGGGGGGAGGGGNGNAAAAAAAAAGNGANGGACAAANAAANAGAAAAANAAGANANAAGA
AAGNNANAAACANNNNAAAAANACNNNGGNAANC GGAGAAAAGAAAAGAAANNNGNANANA
GAANANNANGAGGGGNCAGGNAGAAGAAANNNGANAGAAGGGGNNAAAGGGGGNCGGG
AGAAAAGAAGNAAAAAAAAANAAANNNGAAAAANGGGAAAAATNNGGGGAAANNNGA
AANNAAGAAAAAAANANANCNGNGGNAAAAAAAAAAGGANNNAAAAANNNGGNA
ANANGGNNAAANGNANANANAAAAAGNGGGGGGGAGGGGGGAGGGGNAAGGGNNGAAAAAN
NGAAAGAAAAAGAAAGAAANAAANGAANAANAGANGGAGANGNAAGGNAAAAANAANAA
AAAGNNNNNAANAANANGAAAGGGNAAGNAAAAANGGNNNNAAAAAGAAAAAAAGNG
GNAAAAAAAAAANNNNGGAAAAAAANNNNGGNANNNNANNC CAAAAAGAAAAAA
AAAAGGGNNNNAAGGGGAAAAANANAAANANAAAAANGGGGAGGNGGCNNGNAAAA
AAAAANGNNAAAAAAANNNNAAAAANAAAAANANANNGNAAANNNNANAAAAAN
AAAAAAAGAAANAAGNGGGNNGNAAAAANACNNAANANNGANANGNANAAAAANNNGG
AANAAAAANAAANAAAAAGNNANAANGAAAAAA

Sequence 2035

CCCCCGCGTCCGCGTTTTATGTGTGTATGTACAAAACAAATACCTTTTTGAAATTAC
ATAAGTGATACATGCTTATTGTGAAAGAGTTGGATAATACAATATACTGTAAAGAGATG
AAAACCACTCATAAATCCAACCTGTAATACTTTCGTGTT CATATTTGGCATCTAATG
TATCCTTTATGTATATTTAAATATATATTTTATTCAAGTATAGGATCATGTACCTCCCTG
TTTTATAATTTTCTTTTTAATTTTTCAGTGTATTGTGGACATCTTTTCTCATCAACAAA
TACATCCACAATGTTTCATTTTTGTGCCTCATTATACCATGGAATAGTGACATCCTAGTA
TGTTTAAGACATTCTTATTAATGAACAATTAGGCTACTTCCAATTTTAAATTATAAAGG
ACATTTTGAAGGACTTCCTTGATACATATTCTATTGCTTTATCATCTTTTGGGATAA
TTTCATGTAGTATATTTCCAGTTATTTAAATGAGAAAGTACATGGTTTATAACAAATGGT
ATTTAACGTCCAAGTCACTGCTATCTAAAGGGGTAATTTTAAAGGTATAAAATAATTTGG
CTTATAAAAAATCGTGGGAAAAATATNCTAGAAATATTTAANGATTAACCTTCTAAATTGT
AAATTGGCATATTTAATGATAGAATTCAAAAA

Sequence 2036

CGCGTCCGGAAGAAATTGTGCACCCTCCCAAACATACAAAGTTTAAAGTTTGGATCTT
TTTCTCAGCAGGTATCAGTTGTAATAATGAATTAGGGGCCAAAATGCAAAACGAAAAAT
GAAGCAGCTAGTATGTAGTAATTTCTAGTTTGAAGTGAATTGAATATTGTGGCTTC
ATATGTATTATTTATATTGTACTTTTTTTCATTATTGATGGTTTGGACTTTAATAAGAGA
AATTCCATAGTTTTTAATATCCAGAAAGTGAGACAATTTGAACAGTGTATTCTAGAAAAAC
AATACACTAAGTGAACAGAAAGTGAATGCTTATATATATTATGATAGCCTTAAACCTTTT
CCTCTAATGCCTTAACTGTCAAATAATTATAACCTTTTAAAGCATAGGACTATAGTCAGC
ATGCTAGACTGAGAGGTAAACACTGATGCAATTAGAACAGGTACTGATGCTGTCAGTGT

TABLE 1

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TAACACTATGTTTAGCTGTGTTTATGCTATAAAAGTGCAATATTAGACACTAGCTAGTAC
TGCTGCCTCATGTAAC TCAAAGAAAAACAGGATTCATTAAGTGCATTGAATGTGGCTAT
TTCTCTAAAGTTACTCATATTGNCCTTTGCTTGAATGCAATGCCCCGTGCAGATTATGTGG
CTGCTATTTTTATTTTCTGGGCATTACTTTNACACCNAAAANGGAGAAGCNAACATTTNC
TTCTTCACTGACTGGCAATGGNCCTTTACTGCAATAGGAAGAAAA

Sequence 2037

CCCCGCGTCCGGCTGGGCTTAAGGGATCTTTCCAGGTAGCTGGGACTGCAGGCATATGC
CACTGTGCCAGCTGCTCCCTTAGTCTTGA CTATGTATTTTTTTTTTTTGGTTGTTTTA
TTAGGATAGAGTCCTAAGAATGGCATTACTGGGTTAATAGGTATGAACATTAGATCTTTA
ATACATACAGTCGAATTACTTTTCATAAAGCCATATACCTTTTTATATTTCCACCGATA
TATCCCTATCACTAAGTATTAACCTATTTTCATCTTTGCCAATATGATCATCCAAAGTGA
GGCAGAGGTTGCAGTGAGCCAAGGTCAACCACTGTGCTCTAGCCTGGGTGCCAGAGTGA
GACTGTGTGTCAAAAGAAAAAAGGGGGGGGTGCCGGGTGCGGTGGCTCACGCCTGTT
ATTCCAGCGCTTTGGGAGGCCGAGGTGGGCGGATCACCTGAGTTTGGGAGTTTGAGACCA
GCCTGACCAACATGGAGAAACCCTGTCTCTACTAAAAATACAAAAT

Sequence 2038

GTCGACCCCGCGTCCCGGACGCGTGGGTGCGCCATGAACAAGTTTTCAAGTATCAGTTGA
TTTATGATATAGGCTTATCCATTTGGTTATAAATCATATGTTTATTACATAATCATTGA
CAAATAGTTTTCTGTATAATAACTGGCAGAGTAGCTCTAAAACATATGCAAGGAAATAAAT
AAAGAAAAAAGTTACAATAAAGAGAGTAACTCATATTTTAAACAGTTTTGTGAAAAAATA
GAAAATATTTTATGTAGCTTATAGTACATATATTTTTTTACAACAGAAGAATCGCATTCT
GATTTTCCATATGGATCATTTCCCTATGTTGCTAGACCAGTACACTGGCAACCTGGTCAT
ACAGCTTTTCTTGTCAAGTTGAGGAAGGTCAAACCACAACTTAAGTACTCCAGATG
ACAGTAACTGACTTGAAGATGGAAAAATATCAAAATAGAACTTTATATTGAAAATCACTG
CTTCCATAGATTGGCATTTTTAGCTATTACTATGACTTATAAAGTATACATATAATTT
TGAAAAATAACAATAAAGATGTATAACATAGCCAAAAGTCTTAACCATCCATTTTGA
CCACTTGTCTTGCAGNTAGTTTTGACATTTTGTAGGTTAATGGATTCCAAATTGGTTTAA
GTGGGCCATCTCATTCTTCACTTTCTGGNAANCCACTCCATAGATTTGGCTTTTCTTCAG
GAAAATTAAGNTTCCCTTNCCTTTATTTGGATTGGANGNCATTGGCCTACTGGAAAAA
AATATGCCTTTTTAGGGTTAAAAA

Sequence 2039

GTCGACCCCGCGTCCCGGACGCGTGGGTGCGCCATGAACAAGTTTTCAAGTATCAGTTGA
TTTATGATATAGGCTTATCCATTTGGTTATAAATCATATGTTTATTACATAATCATTGA
CAAATAGTTTTCTGTATAATAACTGGCAGAGTAGCTCTAAAACATATGCAAGGAAATAAAT
AAAGAAAAAAGTTACAATAAAGAGAGTAACTCATATTTTAAACAGTTTTGTGAAAAAATA
GAAAATATTTTATGTAGCTTATAGTACATATATTTTTTTACAACAGAAGAATCGCATTCT
GATTTTCCATATGGATCATTTCCCTATGTTGCTAGACCAGTACACTGGCAACCTGGTCAT
ACAGCTTTTCTTGTCAAGTTGAGGAAGGTCAAACCACAACTTAAGTACTCCAGATG
ACAGTAACTGACTTGAAGATGGAAAAATATCAAAATAGAACTTTATATTGAAAATCACTG
CTTCCATAGATTGGCATTTTTAGCTATTACTATGACTTATAAAGTATACATATAATTT
TGAAAAATAACAATAAAGATGTATAACATAGCCAAAAGTCTTAACCATCCATTTTGA
CCACTTGTCTTGCAGNTAGTTTTGACATTTTGTAGGTTAATGGATTCCAAATTGGTTTAA
GTGGGCCATCTCATTCTTCACTTTCTGGNAANCCACTCCATAGATTTGGCTTTTCTTCAG
GAAAATTAAGNTTCCCTTNCCTTTATTTGGATTGGANGNCATTGGCCTACTGGAAAAA
AATATGCCTTTTTAGGGTTAAAAA

Sequence 2040

CGTCCGCGGAGATCCGGCACACTGCGGACCGCTGGCGCGTGTCCCTGGATGTCAACCACT
TCGCCCCGGACGAGCTGACGGTCAAGACCAAGGATGGCGTGGTGGAGATCACCNCAAGC
ACGAGGAGCGGACGAGACGAGCATGGCTACATCTCCCGGTGCTTACGCGGAAATACACGC
TGCCCCCGGTGTGGACCCCAAGTTTCTCCTCCTGTTCCCTGAGGGCAGACTGA
CCGTGGAGGCCCCCATGCCAAGCTAGCCACGAGTCCAACGAGATCACCATCCAGTCA
CCTTCGAGTGCAGGGCCAGCTTGGGGGCCAGAAGCTGCAAAATCCGATGAGACTGCCG
CCAAGTAAAGCCCCAGCTTGAAGTGCAGCCACGCGTCCGATTTAAATATTTGTCCATTG
TTTGTGATTAGGATGTAAGCTTTGTGGAATGTAATTAACCCTGCTTACGAAGTCACCAT
ATTATAATAGGAAAAACACTGCCTAGGAGGCAAAGAGATCTGAATTCAGTTCTGATGCT
GCCACTGTGTAAGGAAGTAGTTTTATAAACCATGGGCAAATCATCTTGAGCTTTCTCATC

TABLE 1

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TGTAAGTTAGGGG

Sequence 2041

TCGACCNCGCGTCCGAAAAACCAAAACCTGANTGAGATCTTGGAACCGNTGTGCGCCGGC
CGNNCCTCTCCANGGGACCANCCANCCCCGCGCGGTGGCCGACTGNATAGGCGGGACTG
CGCTTCGAGGCTTAAGGACGNCAGATCGGAGGCATCGTGTGTTGTCTGTGCGGAGAAGCC
AAAAANNGTGATTACGTTTATTTGCAAGACCGTTCATGTTGTTTTAGTTTCATGGTATGAT
TAAACCCGATCCTTTGTTACCATGCCCTTAGGTACGAAAAAATAATTGTTTNGATATTT
GGCAGTCACCCAAAAATATCCAAAAAGCCATGAAACAGTANAGGTAAACAAGTANGAAGT
GAAANTAATNTTCGTCCTTTGTTTTCTTTCTGGAGGTGCTCAAAACACCCTCTCAAACCA
TTTTCTCAGCATAGAACCAAGTGTGGNCNGGNTANCAGCTAATATTTACNAGGNGAGAA
ACGAACCCTNGCGATATTTAGTCACCTTTGTTNCCNGGGANCACANAAAATNTTGAACAAA
CACATGAGAACTGTCACCGATCTCTGTATTGATNACCANGGATACCCGTGAATTTTATGT
AATATTAATCTNNGGNAGGCANGANTNTTNTAGGTATTTGCCTTTTCCAAGGTGCNCT
TTCNTACCAAAGGAAAANGGTTATTTTAAAACTTTTACCANAANAAGGGGATGNCTT
ATTTTTGGTCCT

Sequence 2042

NGGACTTGGTTTGAACGCGTTTTCCCAAAGTTTATGTGTTGGAACTTGACCCCAATG
CAGCAGTGTTGGAAGGTGCCTACTAGGTGGTGTCTGGGTCTATGGGGGTATGACCCTCATG
ATGGATAAATGCCATGACTGAGGCGGTGGGCTCCTATAAAAGAATGAGTTTGGGTGAA
ACCTCGTCTCTACTAAAAATACAAAAATTAGCTGGGTGTGGTGGCACATACCTGTAATCC
CAGCTACTCGGGAGGCTGAGGCAGAATGGCTTGAACCAGGGAGTCGGAGGTTGCGGTGAG
CAGAGATCGCACCCTGCACTCCAGCCTGATGACGGAGCAAGACTCCGTCTCAAAAAAA
AAAAAAAAAAAAAA

Sequence 2043

GAGAAGCCTGGGGGTCTGGCTGAACTGGGCTGGGTGAAGGGGGCCCCCTGACCCCTTG
GGGTCCGGGTGGGCTGGGTGAGGGGCGGTTTCCGACCCCAAGCCAGGTTCCAGGCAGG
ATGAGCTGGGGTTGGGGTGGCTAGGCCGTGGGCCTTGGGAGCTGGGCAGTCTGGGCTGGG
CTGGGTGGGCAGGGCGCCACATGGAAGCTGGAGGAGCAACGGGAGCGCTGGGCGTGGGG
TGCAATTGCCAGTGCCCTTCTGTTTCCAGGCAGCTCTGTGGCCATGGATATGTTCCAG
AAGGTAGAGAAGATCGGAGAGGGCACCTATGGGGTGGTGTACAAGGCCAAGAACAGGGAG
ACAGGGCAGCTGGTGGCCCTGAAGAAGATCAGACTGGATTTGGAGATGGAGGGGGGTCCC
AAGCACTGCCATCAGGGAGATCTCGCTGCTCAAGGAAGTGAAGCACCCCAACA

Sequence 2044

AACTCATCAATTAGGTTTTATTTTATTTCTTCTACCCCAAGAAACAAGCCTGTT
AATTTTTTTCTTCTCCTCTGGCGACTGTGTATGAATCCTTTCTTGCCTGATCAGGT
GCGGATAGACTTGTAAGGGTGTGTTGCTGCATACAGTGAAGCATTGTGACCGCCAATAAA
CTTCAATGGTTTCTACTGAAAAAAAAAAAAAAAAAAGGACGCGTCTACTTCCCACTG
GGTCCCTCCCAACACATGGAAATTCAGATGAGATCTGAGTGGGGACACAGCCAAACC
AAATCAAAAGGATATACAAAATAACCAGAAAACAATGAACAAAATGACAGGAATAAGTTC
TCACCTATCAATAATAACTTTGAATATGTGTTAAATTACCTACCTAAAAGATAGAGACAG
GCTTAATGGATAAAAAATGACTCAACAACCGTCTACAAGAACTCACTTCACTTGTAAG
ACACACACAGACTGAAAGTGAAGGGATTGAA

Sequence 2045

GCCNCGCGTCCGTGAGAATACACAAGGGGGCACGCTTCCAGTAGATGTGTTGGGAAGGA
GGAGGGCAGAGGGACAGGGGACAGGATTAGCTTTGTGGTGGGTCTGAGGGTCTCTAG
CAGGGGTAGCCAGGATCTGGGAAACAGATCAGCGACTCTAGTCTGAAGTGGCTGCCTGGT
TCGGGGGTGCCTTACGCAAGATTAGGCAGGAGAGACGGAAATAGCCACCTTCCAGGCG
TGAGTCCTGGAGATAAAAATGGATTTTAACTAGGACTGCCGGGAGCTGGCCCTCCGCGG
CTGCTCAGACTAGGGCTGTGTGTGCTGGCTCTCGCCTGTTTCCGGTGTCTAACTGGCTTG
TTTCTCTTATGGCTTGGCTTCATTCCGACCTGGGGTGGGGCCACATNCAACCCACTGCC
CACTGGCTGTCCGTCTGGCCTGCCCCGCGGTTTCAACCACANTGGTGAACAANCCTTG

TABLE 1

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CAAGATNTACAACTCGCAACACCGGGTCAAGCAATCAGCTGCATTCCGGACCGGTGTGNA
AGACCGAAGGGG

Sequence 2046

CCCCCGAATATCTTATCCTTAACATTAAATTGAATTTTTTGCAAATGATCAAAAGGTCA
TTCCGAGTAAATTCTGTTGTATAGTGCAGATGATCAAGCTGAGTATTGGCCATGTTTTTA
TTTTAGAAAAGAGATGTTGCTATAACATAAGTAAATACGATTCTCGTATGTGGCAGATAA
ATTTACTTGTAATCTGCTCTAGAGTGAATTTATTTTTACATATAAGCATTGTCATCATT
CTAAGGATTATTGAATAATGAATATAAAATGTTCTTGTGTATTGTGTATGTGTATATAA
TTTTTTGAAAGTTTCTTATCCTATTGACCCTTCTCATAAACAGNAGCATATATATTA
TATGTAGTAGAATTTATATAGGAACATTGTCTTTTCCCAGTAATGCTGATTCTAAACTA
GTTATGTCAATTTTCATGTAACATGACATTNAGAATAGTGGGGTGCTAAATATATTTAGAA
ATGATTTCCAAAATTGNTGTATTTCTAACATAGAANGATATTTGTCATTTTAAATAATG
TAAAGAAAAAATGC

Sequence 2047

GCACCCCTCCCTGTTGACACAGCCTGGATCCAGAGTTCAGCAGACCTTGAGACAATGAAA
ACAACTTAGTAATAATCATTTTTCAATCATTGCAGTAATTATTGATTTGGACAAAAATC
AATTGACGTCAAAACCTTAAAGTGACGTTTCTCTGCCTATGGAGTGGGTCACTCTTTTAT
TCCTTTAGTTTCATAATAAATTTTCTTTTACTTAAAAAACTTATAGTTTGATGAAGAGT
GAGATATATACCTCATCTCAAAGAATCTTCACACACACACTT.ATTAATTACAAAAGGAAA
ATCAGTAATTTTGCAGTGGAGACATATGGCCAACTCCACCTTACCCAAGTGGCTGAAAGT
CACTGCACCAGTAATGG

Sequence 2048

AGAAAAGCCNAGCCAACAGCTCTTAAAATCAGAAAAACAANGGGAGTCCTTCCTTGTCT
CNTCTGTGNTCNCNGGCCCTTGTCTCTGAGACTNTCTGTGCCCNNAANCNNTNTNNTNGCT
NTNANCTGATTCTANTTTTGNNTCCCATGGAATCTGTCTAAGACTGGGGNTTTTTGNCA
NATGACAGNCTTGCCNGNACNCAATATCATAACAGCATTNNNNANCGANTTTTGCNGAT
CAAGTAANATANTTGCNTGACAATGACAGCTTTTTAACTCTTTCAAAGTCACTAAAAGC
TATTATTGCAGGAGGATTTANGAAGTCACATTCATTNAACACCCAAGTGCTATGGGTGAA
NNATTGATGATAGCTTGGCCCAAGGTCATGAATTGAGGAGGGAATCTTGCTTTTCAAA
AANCAATGGAATGNTCCNCCACTGAAAAAGGGNNATACGTTTTAATATTTTGGACCCT
TCANAAAGGNTAANGAAAAAAACCCANGGTTCTTCNAAAAAGTTAGNGAATAAGGGGGA
ACTTAANTTTTCATGGAANACAAGCCCATTNTTNNAAAAA

Sequence 2049

CNTACGAACGCTGAAACGTGGAGGAACCTTCAGTTCTGGGAACTCCCTGCCCCTTTCCC
GGAAAATTCATGAGTAATCCACCTGTTTAGCATATAATCAAGAAGTAACCATAGGCATAG
TATATCAAGCAGCCACACTGCTGCTTTGCCCTATGGGGTAGCCACTTTTATTCCTTTACT
TTTTATTAACCTTGCTTTCACTTAAAAA

Sequence 2050

CGCNTCCGAAATCCAATCCTAATGAAAGAGATTGATAAGTGTGACTACAAAAGGTTTAAA
ACTTTTTTCATAGCAAATTATCTCAGAACTAAATTAAGACAAGGGAGACCAGGTGCA
GTGGCTCACGCTGTAATCCAGCACTTTGGGAGGCCGAGGGAGGTGCATTGTTCTAGCCC
AGGAGTTCGAGACCAGCCTGGGCAACATGGTGAAGCCCTGTCTTACCCAAAAATACAAAA
ATTAGCCAGGCGTGGTGGCTTATGCCTGCAGTCCCAGCTACTTGGGAGGCTGAGGTAAGA
GGATGGCTTGAGCCCAGGAAATCAAGGGTGCAGTGAGCTGCNATTATGATTGTGCCACTG
CACTCTAGCCTGCATGTCCAAGTGAATCCTACATNAAAATAAAAAGTNCAAAAANANAAA
AAATGTGCCGGCCCGCTAGACTAGTNT

Sequence 2051

CCACGCCTCCGAAATGCCTCTCTCCAGAGTCGGACCCTCACCTCCTTCTGGAAGTGCC
TTTGGCCCCAGAACCATGAGACAATCCCCACCCTGAGAAGCTNCGATCACTGGGAGGAGA
GAGAAAGCCTCCAGCTTTGGGATTGAGGCTTCAGAAAGTTTTAGCAGCCTTTGCTCATTG
GAGAGGTGGGGAGGATAAGTCTATAAGGAATCCTATTTCCCAGCTCTCCACAGAGAGG

TABLE 1
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ACAAAAGAAGTCTTCACACCGTTGTGGAACCTTCCTGCAACTTCTGGATGCAGACAAGCC
TCAGAGCAGACTGTTCTGGCTCCAGNGAATATCGGCTGCCAAGCTGTGAGCATCCAGGGA
TCCNCGTCTGCCTGGCTTTCCTGAAAGTCAGAAGGCGCCTTGGTCATACTGTGTGGGGTG
NGTNGGATNTTNAGTTNTGNTCTCTTTTCTTTTCTTTTNTTAACAGCTTGGCGGAGTA
GCCAACACCCCTGACAGCAATTGTGCNGCACTTGGCTTAATTACACCCCTATGAATAATT
TTTNATATTTCAACTTGAAAAAGGTGGTTAAGAACTTTT

Sequence 2052

GATGGACTGTGTCATNCAGGACGGCCCTGCTGCATTGGCACCAAGGGCAGGTGTGAGATC
ACCTCCCGGGAGTACTGTGACTTCATGAGGGGCTACTTCCATGAGGAGGCCACGCTCTGC
TCTCAGGTAGGTCTGCAGAGTGTCCGTGCTTCCCTCCCCCAGCTACTGTGATGCTGATA
TGCTGCTCTGCGCAGGTGCACTGCATGGATGATGTGTGTGGGCTCCTGCCTTTTCTCAAC
CCCGAGGTGCCTGACCAGTTCTACCGCCTGTGGCTATCCCTCTTCTGCACGCCGGGATC
TTGCACTGCCTGGTGTCCATCTGCTTCCAGATGACTGTCTGCGGGACCTGGAGAAGCTG
GCAGGCTGGCACCGCATAGCCATCATCTACCTGCTGAGTGGTGTACCGGCCAACCTGGCC
AGTGCCATCTTCTGCCATACCGAG

Sequence 2053

NCGCNTCCGGGCAGAGCCCCCGGAGCCTGGCCAGCCCTTCCGGCAGCTCCAAAGCCACAG
GCAAGCCCCGAGGCTGGGATGGCCGGCCAGGAGGGAGGAGGACGACGTACCTCCCGAGG
AGAAGAGGCTGCGGCTGGGGCTGGAAGGGGGAAGCGCACAGCCCGAGGACTGCNAAGGAC
GGGGAGGACGCGCCGCGGCCAGGCAGGGAGGAGACCGGCACCCAGACAGGTGGCGACGGC
AGAGGAACACAGTGGCTCACGCCTGTAATCCAGCACTTTGGCAGGTGAGGCTGGCGGA
TCGCCTGGGGTCAAGAGTTCGAGACCAGGCTGGCCAACATGGCGAACTGTCTCTGCTAA
AAATACGGAAGTTGGCTGGGAGTGATGGCACGCACCTGTAATCCAGCTGCTTGGGAAGC
TGAGGCAGGAGAATCGTTTGAAGCGGGGAAAGCGAGGTTTGAGTCAGCTTGAGATCACA
CCACTGCACTTCANCCACCTGGGGTGACATGAGCGACACTTCTGTTTTCAAAAATAAACC
GAA

Sequence 2054

CTGTGTAGGACAGACTCTCTTTGACTCCCTAGGATTTACCCAGTGCCTAGCATGTTTCA
CAGCTTAGAGGAAAAACAATTTGTTGACTGACTTTTGATCTCCATTTTTTGGTGAGATG
CAGTGGCTTACACCTGTAATCCCAGCACTTTGGGAGGCTGAAGCGGGCGGATTACTTGAG
GCTAGGAATTCAAGATCAGCCTGGACAACATGGCAAAAAATACCAAAAAATAAAAAAAT
AAATAAATAAAAAATTTAGCCAGACATGGTGGCAGGCACCTGTGGTCCCAGCTACTTGGG
AAGCCAAATCGCTTAAACCTATGAGGTGGGAGGTTGCAGTGAGCCAAGATTGCACCACTG
CACTCCAGCCTTGGTGACAGAGTGAGACCCTGCCTCAAAAAAAAAAAAAAAAAAAAAA

Sequence 2055

TCGACCCCGCGTCCGGGAATTTGGGGTGGAAATGTGATGAGATTAAATGTAGCTTTGGTA
TAACTTCATGTGATTTCAAAATATACTGAACGTCAACATGATTTGAATAAAGAAAATGT
ATTTTCTACTTGAACCACATAACACTGTTATTTAAACAGTTTTCTGCAGTCTAAAAAAA
AAAAAAAAAANNAACAANNAATN

Sequence 2056

CGTCCGGCAGAATGGCTCCCGCAAAGAAGGGTGGCGAGAAGAAAANGGGCCGTTCTGCCA
TCAACGAAGTGGTAACCCGAGANTNCAACATCAACATTCACAAGCGCATCCATGGAGTGG
GCTTCAAGAAGCCGTGCACCTCGGGCACTCAAAGAGATTCGGAAATTTGCCATGAAGGAG
ATGGGAATCCAGATGTGCGCATTGACACCNAGGCTCAACAAAGCTGTCTGGGCCAAAGG
AATAAAGGAATGTGCCATTCCCGAATTCOGTGTGCGGGTTGTCCAGANAACCGTAAATGA
GGGATGGAAGATTACCAAAATTAAGCTATATNCCTTTGGNTNCCCTATGTACCTGGNTA
CCACTTTNAAAAAANTTTACCAGACCAGGTCCAATGGNNGGATGGAGAACCTAAATCGNT
TGNTCGGCCGGANTCAAAATTAAGGTTNTTAAATTTGCCAAAAAAAAAAAAAAAAAAAAA

Sequence 2057

CGCNTCCGGAGAGAGCCAGGGATGCCTTATGGTCAGAACAATTTATAGACAACAAAAG
GGAAGTGACCGTGCAGAAATCAGAAGTGAGGTACAGAAACAGCTGGACTGATTACAGCTC

TABLE 1
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AACATTTGCCTTTTTTGAACAAATCTGAACACTCAGCAGTGTATGAGTGGTTGACCGTAT
NNGCTGCTGTGATTGGCCAGACCTCAGCTATTGTTACAGGCACATACTCTTAAGTCAGGT
TTTCAATCCTATCTGACTATAAAGTTAGGTTACAGTTTGTCTCATGGACTCAAATTTAG
AAGTATGGCGTCCTTCTCAGGCCATATTTAGTTCAGTTTAACAAGTGCATATGGCTTCTG
ACAAAGGTGTGGCCCCCTTAGGACTCCAAAGACGCTGTCACCTACATGGTATTCAGGGAA
GACACAGAGGATCTGTGAGCAGCCTGCAGCCAAAGCTTTTGAGATCATATTGAGATTTTT
TTGTANTATANGAGGAGGGGTTCTGGCTC

Sequence 2058

CGGAAGCATCGACCTGCGAGCTCACAGAGCTGGGAGCAGAGCACCCACGCACACCCCGAA
TGGCTATGGAAGCTGCAGGGCGCCAGGGACACTGGGAGTCCCTGCTCTCATGGCAAAGCA
GGGACGGGGGACTTAAAAGCCACCAACAGGAAAATCGGGGAAAAAAGGGAAGATGGTGGT
AACAGTTGGACACTATTTCTTGGCAAAACCGTGGAAAAACAGTTCTACACCAGCAGGTG
GCAAATTGTGGCCGCCATCTGTGTTTGCAAATAAAGTTTA

Sequence 2059

CCCCTACAATGAGCTGTCCCGCCTCAGTGGCCTGCGAACCCCTCAACCTCCACAACAACCT
CATCTCCTCCGAAGGCCTGCCTGACGAGGCCTTCGAGTCCCTCACCCAGCTGCAGCACCT
CTGCGNGGCTCACAACAAGCTCTCAGTGGCCCCCTCAGTTACTGCCCCCGTCCCTCCGNGT
CGCGGATCTGGCTGNCAACCAAGT

Sequence 2060

ACCCACGCGTCCGCCGATTTTCCAGGTGCCGTCTGTCACCCCTTTCTTTGACTNGGAAAG
GGAACCTCCCTGACCCCTTGCACTTNCAGAGTGAGGCAATGCCTCGCCCTGCTTCAGCTCG
CACATGGTGC GCGCACCCACTGACCTGCGCCCACTGTCTGGCACTCCGTAGTGAGATGAA
CCCGNTACCTCAGATGGAAATGCAGAAATCACCCATCTTCTGCGTCACTCAAGCTGGGAG
CTGTAGACCGGAGCTGTTCTATTGCGCCATCTTGGCTCCTCCGCTCTATTTGCAGTTCT
TAAAGGGCTATTGTA CTCTG GGTATTGTACGA ACTTGGACTGNATTGGA ACTGCAACAG
AAAATCTTCCAGGCAAGTGCCA

Sequence 2061

CCCTTTGAGCGGCCCGCCCGGGCAGGTA CTTCATT CAGTGTACGAGGGAAAAAGCAT
GTATTGGGCCACCGGAAGACAAGCTAATAAATAGGCTGGAAGTAATATTCTACCAGCAGG
AACTCAACAGCTCCAGTTAAATGCTTTGATATAGNGGCTCCTTTGCAGAGCCAAAACAAG
ATTTATTAATTTCTTCAA ACTGTTTATCTTTAAAACAAATATAAGGTTTAAATTATAC
TGCTGTAAGCAAATGTGAATGCCAAAGACTATGTTTTGCAGTTTTGCTTTCCTCCCAATAA
ATATTAATGTATGTAATTCTAGAGGGTAAAAATGTAAATAGGTTTGGACAATATTTGCAC
CCTTGTTTGTGTTATGAAAAAATTTTTCCAAGGCGAGCTAGAGAGAAAGATGTTTGGCA
TGCCAAATTA ACTTG CATGTTTGT TAAAAAACAACACATGTTTTTAAAAGAAACCAG
ATCTGAACGTGATTTGTTGAAGTTTGC AAAA

Sequence 2062

CCCTTTGAGCGNCCGCCCCGGGCAGGNACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTAAAAAANNAANNNNTNNNNTTTTTTNGGCCNTTNNNTTNAANNNAANCNNNT
TTNTTTNGGGNTTNNNTNAAAAAANNNAANNNAANCCCNCCNGNNNTTTTAGGGNAAA
AAAAANTTTTNCNGGGNTNAAAAAATTTNNTTTTTGGNTNCCAAAANNTNNGNNAAAAA
ANNAANNANCCNNNTTTTTTNNNNNGGGGCNCCCCCTTTTTTTNCCNTGGNGGGGNG
GGGNAAAAAGGGGNTTTTTTNGGANCCGAAAAAAACGGGAAANTTATCCCTTTTTTGN
GGGGCCNTAACTTTTTTTTNNCCNCCNTTNTTTTTTAAAAANCCCCCNCCCTTTNTCC
CTGNTGGNNCCCTTTTTTGGCCCGGGGAAACCCNNTTTTTTTTTTTTTTTTTT

Sequence 2063

AAGGGAAAAATGTCACGTANACTAGATCAGGGAACAAAAATCCTCTCCTTGTTGGAATATCC
NATGCAGNNNGNTGATACA ACTTANTATCTTATTGCCTAANAAAAAATTTCTTATCATT
GTTTCANAAAAGCAAATCATGGAAAAATTTTGTGTCCAGGCAAATAAAGGTCAATNT
AATTTAGCTGCAATTT CAGTGTTCTCACTAGGTGGCATT TAAATGTCCCCTGATGTCAT

TABLE 1
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TAAGCACCATCCAAAAAGTCTGCTTCATAATCTATTTTCAAGACTTGGTGATTCTGANAG
TTTTGGTTTTTNGACTTTGTNTCTCANGAAAAAANATTCCTACTTAAATTTTAAGTC
TATAATTCAATTTAAATATGNTGNGGCGTCTCATCCAGGATNGGATAGGTTGTCTTCTAT
TTCCATTTTACCTATTTAC

Sequence 2064

CCCTTCGAGCGNCGCCNCCAGGTACAGACTTAGAAATTATCTAAAGATTTTCATCTT
TTTACCTCATATTTCTTAGGAATTTAATGGTTATATGTTGTCTTTTTTTCCTATGTCTTT
TGGCTCAAGCAACATGTATATCAGTGTTGACTTTTCTTCTTAGATCTAGTTAAAAAA
AAAACCACATAACAATTTCTTTGAAGAAAGGAAGGGATTAAATAATTTTTTCCCTAACAC
TTTCTTGAAGGCTCAGGGGCTTTATCTATGAAAAAGTAGTAAATAAGTTCTTTGTAACCTG
TGTGAAGCAGCAGCCAGCCTTAAAGTAGTCCATTCTTGCTAATGGTTAGAACAGTGAATA
CTAAGTGGAATTGTTGGGCTGCTTTTAAAGTTTCTCTTAATCAAATTAAGTAAAGTGA
GAATTCAAGAACTTGGTACATGTATTACTTGGTGGTATCGATAATCATTTAAAAGTAAAA
GACTCTGTATGCATTTTTCCCATTTCTTTTTTTTCCCTGTCTCCGGGGCCAACCCAA
GTGGGTCTTCATTTT

Sequence 2065

CCCTTAGCGTGGTTCGCGGCCGAGGTACNCGNGTCCAAGATGGCGGATGAAGCCACGCGA
CGTGTGTGTCTGAGATCCCGGTGCTGAANACTAACGCCGACCCCGAGATCGTGAGTTG
TGGGTGCAGCGACTGAAGGAGGAATATCAGTCCCTTATCCGGTATGTGGAGAACAACAAG
AATGCTGACAACGATTGGTTCCGACTGGAGTCCAACAAGGAAGGAAGTCCGGTGGTTTGA
AAATAACATCTGGGCCTGCTGGAGAAAAAGAAAGATTACAACTTCGTTGCATATGACTA
CCGTAATAAACAAGAATACCTCAAAGCTCTTCGGAAGAAGGCTCTTGAAAAAATCCAGA
TGAATTCTACTACAAAATGACTCGNGTTAACTCCAGGATGGAGTACTTTAATTTTTTT
TNTNATANTTNCCAGGAACATTTTCTAATTATGTTATATAAATGGGTATGTGATATGTG
NGCTATTTGTGTGCTAATGTCCTAAGTGAAGTTCTGCAGACCATCTGGGTCAAAGTGCAT
TTCGCATGATCCAAAANATGAAGAACCATTGTTTGTACGGGAGACNAGGGAAAAA
A

Sequence 2066

CTTAGCGAGGTACGNNCANGAACGCGGGGNGNTCAGGAAGATNTCTGAAGAGTGCAGC
NGCCTGAACCGAGCCCTGCCNAACAGCTGACAATTGCACTGCAACCATGAGTGA

Sequence 2067

CATGCAGAANTCCTCGCTGGAGTTTCATAAGGCCAATGAGTGCCAGGAGCGCCCTGTTGA
GTGTAAGTTCTGCAAACTGGACATGCAGCTCANCAAGCTGGAGCTCCACGAGTCTACTG
TGGCAGCCGACAGAGCTCTGCCAAGGCTGTGGCCAGTTTCATCATGCACCGCATGCTCGC
CCAGCACAGAGATGTCTGTGCGAGTGAACAGGCCNGCTCGGGAAGGGGAAAGAATTT
ANGCTCCTGAAAGGGAAATCTACTGTCATTATTGCAACCAAATGATTCCAGAAAATAAGT
ATTTCCACCATATGGGATTCCAGACCATGANGCCAAAGTAATTCCTAATCCCCACACAC
AGGAATGGCATGGGACCTGNGATTTTGAGTTTTCAAGGGGCCGTAAGNTTTTNATTCTTC
ACACCTNCAAATTACCCGACCCCAAAAAAAAAAANAAAAAAAAA

Sequence 2068

CCCTTAGCGTGGTTCGCGGCCGAGGTACTTNTCCGATTTCAAGAACTGATGAAATTAGAAA
AAACACCTACAGAACATTGGATAGCCTGGAGCAGACCATTAACAGCTCGAAAATACAAT
CAGTGAAATGAGTCCCAAAGCCCTAGNTGATACCTNATGTTCTTCCAACAGAGATTCTGN
AGCAAGTTTCATCCACATAGCCCAAGAGGCCTCTCCCGACCCCTTGCTAGTTNCGGATGA
AGGTNCCACTGCCCTAGAGCCCCCTACGTCGATACCTTCAGCTTCACGTAAGGGCTCCAG
CGGGGCCCCACAGACGAGCAGGATGCCTGTCCCCATGAGTGCCGAAGAACAGACCCGGAAC
CTTGGACAACACCGGCAAGCAGTCCAACTGCAAGAACCNCGCCAATATCGNCAGGGCTA
ATGGAANTNCTAAGAAATCTTGGNNGGGGACTNTTAAAGCCTACTTTCCCTACTTACCT
GCTTCTAAAGATTCCAAGGCCNTTCTTCCAACTTTTGGG

Sequence 2069

CCCTTCGAGCGGCCGCCCGGGCAGGTTCAAGGATNNGAGCAGCTTACCAACCCCTGCA

TABLE 1
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AAGTGA CTCTGAAGAAGACGACAAGCCCTGCTCCAGTCACACCCGGAAGCTGACTGGTCC
ACGCACAGCTGAAGCATGAGGAACTCATCGCGGGACTAATTTTCCTTAAAATTTANACT
TGCACAGTAAGGACTTCAACTGACCTTCCTNAGACTGAGAACTGTTTCCAGTATATACAT
CAAGTCACTGAGAGAACATCACCACCCTGAAGCCAGAGACTAACACTGCAGGACTCAGCA
GGACTATTTAAGAAACA ACTGAGGCATCAGACCAACTTTCCCCACAAGTCTCGGATCTT
TCCTGCCATGCTGATGCCATATATTCCAACGTGATCAACCTGGCTCCCCAGAAGGAGGAC
GACTTTGCTGTCTACACCAACATGCCCCCTTTTCATCACCCCAAGAGGACATTGCCAGAC
CAAGTGGGAATATGTCTTCCATTGTATTTCCAACCTGATGGGGAAAGCCTANATGAAGATG
CTCAAGAAGNGGGGGGGTCAAGACCCTGACCCCAAGCCTGAATCTTTGGCATTACCCTTTGC
TTTAAATTTAATGTGGTGGNGNTTTAAAAAAAAAAAAAAAA

Sequence 2070

CCCTTTGAGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTCNGCGGGG
NGNNCTACTTNANAATCTTTGGCNGGTTTNNCNGTTTTNGGTTTTCTNANCNCTTGGNCT
GGTNCATTTGGTTTNGAANAATCNGTTNCTTCNGATTTTNNANCAAANGGTTTTNGNCA
AANGGTTTTNGAANCTTTNNCCTTCTCNGTNGAAGTNGTGGGTTTTNANAANANAAA
AATTGGGGTTNATCATTTTTTCTAGGCCNGAANGTTTNGNNCNTNCCTNTTTCANAATCT
ANATTAATAC

Sequence 2071

CCCTTTGAGCGGCCGCCCGGGCAGGTNCNGGTTANCAGACCCACAACACGAAGCTCCTG
CCTTTTAAGACTACAAAGAGGCAGCTCAAAATTAGACTGCACAGGTAAGCGAGGAACTGC
AGTCTAAGCCTGGA CTCTGCCTTCTGCCCTCCCCCGCGTACTCAAGCAATAAAAT

Sequence 2072

CCCTTTGAGCGGCCGCCCGGGCAGGTNCTNTTTTTTTTTTTNTTTNGCNGAGTGAGCTA
CTNTAGGATCTTNTGCTGGTTNTACAGTTTTTGGTTTTCTTAGCACTTTGTCTTGTTCAT
TNNGNTTNGAAGAATCTGNTTCTTCTGATTTTTTAACANAAGGTTTTTGACAAATGGTT
TTTGA AA CTTTTACCTTCTTCTGTTGAAGTTGTTGGTTTTTTAGAAGAGAAAAATTNGT
GTTTATCATTTTTTCTAGGTCTGAAAGTTTTGCGCATTCCTCTTTCAGAACTAGATTAA
TAACTAAAAATCTTAAACTTGNTTTTGAGAATATTTACTCTTCTGACAAATCTTCGA
TTAACTTTCTCAGATTTTAAGTTAGCTAAACAAAANTTCCTTGTTTNGNTTTNTTAA
TNTCGAATGCTNACTCTGTATCTTCAAGTTTTNCAATTTTTCGATGTCTTAGCATCAA
AAACAGATTTTAAACGCTTCAAATTAATCTGTTCTGCAGCTAAACNGTC

Sequence 2073

CCCTTAGCGTGGTCNCGGCCGAGGTACGTGCTTATACAAGATGTCAATTATGTGGTCGTC
CACATGCTGTATTACGTAAATTTAAAATTTGTAGAATTTGCTTCCGTGAAGTAGCTCACA
AAGGACAAATACCAGGTATTAAGAAAGCGAGTTGATAATATGATAATCACAGATCCAATA
GCAGATATGATCACAAGAATCAAAATGCCCTCACACGTAAACACAAAAATGTTATTATT
CCTCATTCTAAGAAAAAGAAAGAATCTTACAAATCTTCTTAGATGAAGGATATATAAAA
GGATTTACTGTATCTGGTGAAGTTAAAAAGAAATTAATGTTGAGCTTAAATACAAAGGA
AATACAAGTTCAATTGNTGGAATTAAGAGTTTCCAAGC

Sequence 2074

CCCTTTGAGCGGNCGCCCGGGCAGGTGGGCAGGTACTTCAGCAAGTCCTCTTCTCCTC
AGCAGTAAGCTCAGCCGGCAGGTGCCTGACCAGAAGGGTTCGGTCGCCCCGAGGCGGGGA
AAGCGAGGAGGAGCTCGTGCATCCCCTTGATATCGCAAGCGGCTGCTCGGGAGCTGCCAT
TTTCCTTGGAGAAGCAAAAACAGAAATCGTGGAAGAAGTCTCAGTCAAAATCGCGGCAT
CAACACAAGCTGGGAGAAATATTTTTCCGCCTCGCGCTAAGGATTCTGGAAACCAGGAA
ATACCGAGAAAGAAAGTCACCTTCTCGCGAGA ACTGCGCCACCGAAAAGCGGCAACCCTT
CGAAGACTCTTCGGGGAAGGGCGCGGTGCTAATGATTTAAATTC AAGGGGTCTNCGGAA
AGACTTACAAAGCCAAAAATTGGCCCAAAAGATGTGCGANGGTTAACACAAGTTGTCAAT
CAAAGAAAGGAACAGGAACCCCAACCCCTTTAAGGA

Sequence 2075

TABLE 1

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CCGCCCCGGGCAGGTACAAATTGAGCTCTCTATTTCATAACCTCAATGTATGTATTCTGCC
CATTAAATATACTTTGCACCAGCAAAAGCGATTTCCAACATATGTGTTTTGGAGGTAATTA
AGTAACTCTGTATAAAAATAAATGCACTTTTCCCTCCTTTCCCAAGTGAATGGAAAACCT
CCATACTTTCAAATAATAATAAAAAAATAATTTTTAAGAGCAACAGCCCTCAACTCTT
GCTGGTGCCTGCCATACTGCCTTTCTTCACTCCATTCTTAGCTCTGCTAGTTTCTTCTTG
TATGTCATGATAAAAAGGGAATGTGGGTGTGTAACTTTTGTGTATGTCCCGTTTCCAAAT
TTCCCTCTCCAAAAGCCAACCAATAAACAAACAAACGAAAAAACAGTGCAACA
AAACACAAATAGCATTCCAACAGTT

Sequence 2076

TTTCGAGCGGCCCGCCCGGGCAGGCACATAAAACATTATTCCTTCCTTGGCCTAAAACTC
ATCGCCACCTACATTAAAGCTAATATGCCTGATTACTGTTTTAGAGAACTTATTTTATT
AGGGCAGTTCCAAGCTCAAAAATACGCTAACTGGCACCTTGTTAGCTACATAAAAATGCA
CCCTAGACCCGAAAACCTTACTAGACTCATTATAAAATTTTCTTTAAGGTGTCCACGCAGTC
CCTGGTCACACTTGAAGCAGTCCGGAGAAATATCAGCCCTACCCAGTAATCCCCAGAAG
GAACTTACACTTTTTTTAATCTTTTCTTACAACCTTCATATTTATAAATAAAAAGACAA
AAATGTCAGGCCTGTGAGCTGAAGCTTAGCCATTGTAACCCCTGTGACCTGCACATATCC
GTCCAGGTGGCCTGCAGGAGCCAAGAAGTCTGGGAGCAGCCCGAAAAACCACAAAGAAGT
GAAACAAGCCAGTTCCTGCCTTAACTAATTAACCCACCTTACGACATTCCACCATTATGA
CTGTCCACCATTATGACTTGTTCTGCCCTGCCCAACT

Sequence 2077

CCCTTTTCGAGCGGCCCGCCCGGGCAGGTTTANGTCANAGTCTTCTNTTCTNTTCTNNNTGA
GATGGAGTCTTGCTCTGTTGCCAGACTGGAGTGCAGTGGTGCGATCTGGGCTCACTGCAA
TCTCCACCTCCCGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCGAGTAACTGGGACTAC
AGGGTGCAGGCCACCAAGCCCAGCTCATTTTNGTATTTATAGTAGAGATGGGGTTTCACG
ATGTTGGCTAGGGATGGGTCTCGATCTNTNGGTGAGAGTCTNTTCTGTAAATATCCTT
GGGTAAAAGAAGCAATTTTANACTGTAACTGATGNCAANATGCTTTAAGGGAAGAAGGC
N

Sequence 2078

TCCCTTNCTTTCTCGCACGTTTCGGCCGGCTTTTNCCCGTCAAGCTCTAAAATCGGGGGGG
CTCCCTTTAGGGGTTCCGAATTTAAGTGGCTTTACGGGAACCTTCGAACCCCAAAAAA

Sequence 2079

CCCTTTTCGAGCGGCCCGCCCGGGCAGGTNCAGGGTCTGTCAGAACTGTTGGAATCTTACA
TAAAGTCAAGTCTCAGAAATGTCCGATGCTTCACCATATTCTTATATTCTATGCAATTGT
TGTCTGTGCACTAATCATCTCGACCTTCTACATGAGATACAGAATTAATACTCTGGAGGA
GCAGCTGGGGTTACTAACCTCCATTGTGGACACCCATAATACTGAACAGGCAGCACCATC
TGGCCTGAGGTCACAAGTACCTCGGCCGCGACCACGCTAAGGG

Sequence 2080

ACCNTATAACGGCCGCGAGTGTGCTGGAATTCGCCCTTTTCGAGCGGCCCGCCCGGNCAGGTA
CGCGGGGNTGGTTCCAACTTTTCTGCTNATCTGGGAGGTGNTGGGCGCGGACAGTCNAGA
TGTCAGAGAAAAAGCAGCCGGTANACTTAGGTCTGTTAGAGGAAGACGACGAGTTTGAAG
AGTTCCTGCGGAAGACTGGGCTGGCTTAGATGAAGATGAAGGATGCACATGTNCTGGGA
GGATAATTGGGATGAATGACAATGTAGAGGGATGACTTCTCTAATCAGTTAACTGAGCTG
AACTAGAGAAACATGGGTTATAAGATGGGAGACTTCATAGCCATCCAGAAGAAGTGCTG
AAGTAAACCTAAAACCTTGACCCTGCTNAAATACATTGTAGGGGCAAGAAGAACCAAGGA
ATGGGGACACT

Sequence 2081

CCCTTTTCGAGCGGCCCGCCCGGGCAGGTACGCGGGGNAAGTGTGCGCGCCGCCACTGTCCG
GCCACAGCCTAACGCTCTTNGCTGTCTGTTGNGGNCTCGCGCAGGGCGGCCCGGNTCTG
GTGTTTGGCNGTCGGAATTAACAACCACCATGTCCGAGCAAAAAGGCAAAGACCAAGAC
CACCATAGAAGCGCCCTTAGCGTGCAACATCCAANGNCTTAGNCATGTTNGACCAANNCA
CAGATTNGAGGAGTTCAAAAGAGGCCTNCAACATGAGTTGATCAAGAAANANGAGATGGCT

[illegible]

TABLE 1
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CNTCNCGCCACGGACGCCCGGCTNTCCCCGNCAGCNCNTAAAAACGGGGGCCNCCCACAA
AGGGGGCCGANANAAGAGCENNNAACGGGNACCCNCGACCCCCAAAAAACNNGGAAANAAG
GGGGGAAGGGGNCAACGCAAGNGGGGCCAANCGCCCCGGANAAAAACNNGAGANNACCGCC
CCNCNGAACGGANGGAAGACCANCGGCCCAAAAAAAGGGGNCCCACGGGGCCAAANCAG
GGAACAACACAAACCCCAAANCCGGGGCCANNCCNNTGGAANCAAAAAAGGGANANG
AGCCGAACACCGNCCCAATGGGGGA

Sequence 2090

NATTGCGAANTGGGCCGCTCTTCNCGCTNNCTCGCTCACTGACTCCGCTTGCGCTCGGTC
CGNNCGGCTGCCGGCGAGCGGGTATCAAGCTCACTCAAAGGCGGGAAANACNGTTATTCC
ACAAGAANCAAGGGGGAATAAACCGCCAGGGAAAAAGAAACAATGGTGAACAAAAAGGCC
AGCAAAAAGGGCCCAAGGAAACCCGAAAAAANGCCNCGGTTGGCTGGCGTTTNTTCAA
TAAGGCTCCGGCC

Sequence 2091

CCCTTANTTTNGNCNTTNNCGANGNACCACACACATAGGTAGCCNGCATTGGAACAG
GCACCGTGGGCTGGGCTGCACCACACCATCTTTCATGTGTTATCTCTTCTAGAGACTT
CTTGAAAATTGGTAGGATTATCATATCATATGTTCTTGAAACATCTGTTGACTATTTCT
GTACATCATGGCTCGGACTTGGGTCAAGCTCTTGGCACC AATGTCCTGGCATGAGTGTG
GATGCCAGCAATCAGGTAAGGGACAAATTTGTGGATTGACCCCTTGTCTGCACAGCACC
AGACACTCCCTGGGCCACTTTGATTTTGTCAAGCTTCACTGAAATATCTGTTCTGGCTGC
TGAGGTGCTTGTCCCATGGCATCGAAGAGAACCCATACCGCGATATTTCTTAGCNCGGA
TCCCATCGGAAAAAGAAAGTANTCACCAGGGGGCCCTAAGTGGGTGGCAGCCAGGAAGAG
AGCCCCATCATGGACTGNNGGAGGCCCAAGGGGC

Sequence 2092

GGAGCTCCCCGCGGTGGCGGCCGAGGTACATTTTAAAGAGTTGTTTTTGGCCGGGCGC
NTTGGCTCATNCCTGTAATCCCAGCACTTTGGGAGGCCGAGGTGGCGGATCACGAGGTC
TGGAGTTTGAGACCATCCTGGCTAACACAGTGAATCCCGTCTCTACTAAAAATACAAA
AATTAGCCAGGCGTGGTGGCTGGCACCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGG
AGAATGGCGTGAACCTGGAAGGAAGAGGTTGCAGTGAGCCAAGATTGCNCCCCTGCACTC
CAGCCTGGGCAACAGAGCAAGACTCCATCTCAAAAAAAAAAAAAAAAAAAGTACCTGCC

Goooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo

[illegible]

TTAATTGCGCCCTTGGCGTAATCATGGTCATAAGCTGTTTCCTGTGTGAAAATTGTTAT
TCCGCTCACAAATCCACACCAACATACGAGCCCGGGAGCATTAAAGTGTAAGAGCCTGGG
GTGCCTAAATGAGGGGAGCTAACTCAACATTTAATTGCGGTGCGCCTCACTTGCCCGCTT
TTNCAATTCNGGGAAACCTTGC GTGNCCAGCTTGCANTTAATGAAATCGGCCAC

Sequence 2093

CCCCGCGTCCGCTCGNAAATTGTTGATGCTCTTCCCCTCCCCGAGGTCTCGCATNCAA
 ANCCTGGTGGGCTGGCCTTGTGTGGCTGCTTCTCAGGCCTGGTCAGNACCCAGCAGGCT
 CAGGGTCTGCTCCTGATGCTGNGCTCTGGGACAGGCACGCCACTGTGNGAAACACTAAGC
 NAGGTAATCGAGCATTTNGTGATCACAGACTCCAGCTTCTGGTCCACCCAGCATGTAGT
 CAGCACTCTGACCTTNACACCAGAGCTCCACAGCGGCTAGGAGTTGACTTCCTGTGTCAT
 GACCTCAGGAAATAAATTTCCTTGACTTTAAAAAAAAAAAA

Sequence 2094

TTCTGCTGAGACGCGTGTGGCTNCCTCCCCGCAACANCCAAAATGNTGAAGCTGATCGAG
AGCAAGGAAGCTTTTCAGGAGGCCCTGGCCGCCGNGGGAGACAAGCTTGTONTGGTGGAC
TTCTCTGCTACGTGGTGTGGACCTTGCAAAATGATCANGCCCTTCTTCCATTCCCTCTGT
GACAAGTNTTCCAATGTGGNGTTCCTTGAAGTGGATGTNGATGACTGCCAGGATGTTNCT
GCANACTGTGAATTCNAATGCNTGCCAGACCTTCCAGNTCTATAAAAANGGGNCAAAGGN
GGGGGNNNTCTACNGNGCTAACAAGGAAAAGCTTGAAGCCTNTATTACTGAATATGCCTA
ATCATGCTCTGAAAAGTGGGACCAGCTNCCAAGCTGNTTNAACCTCGTACCNTTNTTAA
TTTGCTAAAAACTATGAAAGTGTGGAGAGGCTATCCCAACTGNCATCTGATTATTAGTA

CAATAAAAAAANTAATTCTACCCCTTNNANAAAAAAAAAAAAAAAAAAAA
Sequence 2095
TGTGTAGCACCTGNGGNGTCTTGTNGTGATTATTCTTGTNCGAGGTACTTAGGGCAAGTC
ACATGCCCTCCATCCCNTGGCTCANAGATGAAGAGTAAATCCAAAACATGTGCCTCGCTC
TTGGTCACTAACTGCTGNCCTG
Sequence 2096
TCGAGCGGCCGCCCGGGCAGGTACTTTNTTAATGCCTTNGTTGGAGTCCTNATCCTCATC
TTTAAAAAAAAAAAAAAAAACAGNTTANCCTAAGCCANATTCACTTTTTTTAGTTNACAAAA
GGATTAANTNGCCACANTGTGATT
Sequence 2097
ATTNNCCCTTAATCATCTCACGCCCCATGTATGATTCTCAAAGNGCCTAGCGTGANCANC
NGTCCCTNAGACCACACCAATTTCTTNATGTCNCNCTCAAGAAAGCCAAAATGACAATNA
TAANGCCATCTCAANCNCAATANCCTACCANAACCACCCCNCGNCTTATCTANACTTCA
ACTCAAACCTCTGCTCCTTACTNTCTGGGGAGCTTNAAAACCANNTNACTNATAACTT
TAAAAACCTNTCTNTAAAATNTCANAAACCACANCTCACCATTNNACAACCACCCCCA
ACACCAANANNTTCCCAAAACAACC
Sequence 2098
CCCTTAGCGTGGTCGCGGCCGAGGTACACCAAGACCAATTGCTAAAATCTTGGATTATGG
AAAAATTAAGTATGAAAGAAAGAAAAAACAAAAAGTTGAAAAAGAAAAACAATCTTTCAC
AAACAATAGAGAAATTCGTTTATCTTTTGAATCAATTTAAGNGATATAAAAATCAAAGC
AAAAAAAGCCAAAGAATTTTTATTAGATAACGACAGAGTAAAAGTGGCTCTTCGTCTTAG
AGGGCGTGAAAATACAAGACCTGAACAAGGTAAATTAATTTAAATTTCTTTTTTTGATGA
AGTAAAATCGATTGCAAAATTAAGTAAAGAAATGCAATCAGTTGGTAATTTTTTA
Sequence 2099
NGNCCTTNCGAGCGGCCGCCCGGGCAGGTACAAATTGAGCTCTCTATTCTATAACCTCAAT
GTATGTATTCTGCCCATTAAATATACTTTGCACCAGCAAAAGCGATTTCCAACATATGTG
TTTTGGAGGTAATTAAGTAACTCTGTATAAAAATAAATGCACTTTTCCCTCCTTTCCCCA
GTGAATGGAAAACCTCCATACTTTCAAATAATAATAAAAAATAATTTTTAAGAGCAAC
AGCCCTCAACTCTTTGCTGGTGCTGCCATACTGCCTTTCTTCACTCCATTCTTAGCTCT
GCTAGTTTCTTCTGTATGTCATGATAAAAAGGGAATGTGGGGTGTGTAA
Sequence 2100
NCCTTAGCGTGGTCGCGGCCGAGGTACACTGGAGGCTGGAGCCTGCAGATGGCATGGCTC
TGCGGCTCACCTTGCTGCAGTTGGTGGTGGTGACAGAGACTGCAGCTTGACTGTAGTGAA
TTTGGAATATCTGTCTGGAAGCTCTGAGTTTATCTTGGGACCTCAAGAGGAGAGGATC
ACCCAACCTCACAGCAATCAAACCTCAAATGGTGCTATAAACTGAACCACACATGGACACG
TCAGTCTTCCGAGGACCCTTAGATCAACCCCAGGAGGAGCCCTAGCTGCTGTTCCCCATT
CGACGCCCTTTCCAGCAGG
Sequence 2101
NAGGGGCGGGAATTTTGGGNGGGCCCCCCTTTCTTANAATGCATTGCTTCGNANGGCC
GGGGNCCCCCCCCCAGTGGTGGATGGGATATTCTTNCCAAAAATTGGGGGGGGCCCTTT
TTNNGGNCCNNAAAAAACCCCNNGGGGCCGNCCCGGGGCCAAGGTTACCTTGGACTTGGAA
AAATTTGGGGCNTTTTTNTTTTGGGGGNCCCTTTNCCCNNNNNNNNNNNNNNNNNNNNN
NNNANGGGCCCCCGGGTTTNTTNCNTTTTCCCAAAANAGGCCCNNTTNNNGNGNGGG
GNGGGTTGGGGGNAAAAAANNNNNNNNTTTTTTTTTNNNNNNNNNNCCCCCCCCCCCCCN
TAAAAAANAAAAA
Sequence 2102
CCCTTCGAGCGGCCGCCCGGGCAGGCACTTATTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTNTNANAAAAAANNTTTTTNTTNAANTNGGGNCNNAAACTNTTTAACNAANN
AAAAAANNTNTNNTAAANGTTNTCNAAGNNGGGNNNNNCCCNANAGGNANAAAANGAA
AANGNNTNATTTTTNTTNAAAAAAANNTTTNNTAAANTGTTGNNGGNGGGGGTAGG

TABLE 1
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TTAAAAAAAAA

Sequence 2103

CCCTTTGAGCGGCCCGGGCAGGTACTCTGTCTCTGTAGTCTCTCCATTCTAAAGTT
TAATTTGAAAGGTCTGTCTGAATTATCAAAGTAAGAATACTCAGATTTCCATAAGCTC
TTCTCACCTCCTCTTAGCCCAACTCAAACCTCCATCAGACCTTCTCACCTTGATTTTGAGC
TGGAATGTTTCAATGAGCAAAATAAATTAGACAAANGTTAAAAAAAAAAAAAAAAAAAAA
NGTACCTCGGCCGCGACCACGCTAAGGG

Sequence 2104

CCCTTAGCGTGGTCGCGGCCGAGGTACCTGACCCCGGTCTCAAGGAATCAAAGTTTAAG
GAAACAGGTGTAATTACCCCAAGAGTTTGTGGCAGCTGGAGATCACCTAGTCCACCAC
TGTCACATGNNANTGGGCTACAGGGGAAGATTGAAAGTGAAGGCATACCTACCAACA
GGCAAACAATTTTGGTAACCAAAATGTGCCGTGCTATAAGCGGTGCAAACAGATGGAA
TATTCAGATGAATTGGAAGCTATCATTGAAGAAGATGATGGTGATGGCGGATGGGTAGAT
ACATATCACAACACAGGTATTACAGGAATAACGGAAGCCCGTTAAGAGATCACACTGGA
AA

Sequence 2105

CCCTTAGCGTGGNCGCGGCCGAGGCACCTTTTTTTTTTTTTTTTTTTTTNGCTTTTTT
TTTTTTTTTTTTTTTTNTTTTTNTTNTNCNTTTCNATTTTTATNCTTTTTTTTTT
TTTTNAATGGCCAGGCTCCCAACATTTNAAAAAACTGCNCCCCCAATGGGTGAACAAA
GTAAAGAGTAGTAACCTAAAGTTCACCTGAGTAAGCCACTGNGGAGCCTTAAGNGGNGAG
GTCTTCCAATTTNANAGNGATGNGNCTTCAACTTGTATNATNATTTTANGCGGAAAAACA
TAA

Sequence 2106

TCGGCGTCGCGACCCCGAGGACCTCCTCTNCTCGCTCTGTGGCATACTAGTCTCTGGG
CACTCAACCGCGGAGAGCCCCGACCCCGGGGTAGCGGCTGAGCCTCAGCCGGGACCGGN
ACCGGANCCCCGCGCGGAGCATGTNATCCGGGCTGGGGGCAGCTGGNACAGTGGGCTGGGT
TGGCCCTCCT

Sequence 2107

AATTTGTGTGTTTGTGTTTGTGGGGTTTTGTTTTATTTCTTACATTANAGTNCATA
TTTTCTGGGATTTAAATTATAGGTGTATTTCTATTCTCTTGAGAAGNAGACTAAACAG
TCTTTGCAATGATGACGGATGCACACAGAAANAAACATTAGAAGACATTACTTTCTATCC
TCTCATGTGGTTGANCATTCTTACACGCCAAATGACTAAATTGGTGTTTCTNAGGAAGGA
GCAGCTGTCACTTACAATGTGAAAATTAATGTTTTAGGCCAGNGGGCCAAACCTTCAA
GGGGGCCTNGTTGGNCAATTTATNGTCCCCTNATNCTTTTAAAAAATTTGAANGGTTCAN
NNAANTTGTNNAACCAACCAACAAACNCCCCCTTTNANCATNGNGGGGGCAANGGGGT
GGGGACCTTNGNGACCTTAANTGNATTGGCCAATTACCGCCTTGGGGCCTTGNTNAANGC
CTTCAACNCCNAAAANAATTGGCCCACTAATTGGGGGTCTTTTNGTNANACCTTNTTGG
NACCAACCAACAACCTTAANCTTNGANCTTCACAAANGGCTTGGGGCNAGGGTANCAACA
ACNTTCAAGGTTTATNCCGGCTTCNCAAANGGCGNCTTNAACCTTNTTGGNGAATTTGA
AGGCTTAAAAACCTTGGCCATGGAAATCCCANCTTTAAGGGCCCAATCCCTT

Sequence 2108

ACCACGCGTCCGAGCTCGCTCAGCACTCCAGGTCTTAGCACTCCAGGTCTGAGCTGG
CGCAGTCAGTAGGAAGTGAAGTATGTCTCTGATGCACCACGTGTTTAGACACAGCACAG
TCCTTTTTCTGTTCTACGGTGGAAGTAGTTTCTCTTTGGGCATGCTGACAGCACTTTT
TCATAGCCTCACCGATGAGCCCTTCTGCGGGAGTGACTCCATGCCTGTATACAGAGTAT
TTATACAGATGTTTTAGCATCTTCATATGCGGTGTTAACCCTAGTTCTGTACAGCATAT
TCTGTTCAAGTATTTTTTACAAGCTTGTGCTGTAGGCACATGCCTTCTGCTGCAGAAGT
GGACACCCGTGGCACACCCACCCGCCCCAGTGGGGTGCCATGCCTTCTGGGACATTGC
CACTTCTGCCCTGGAACTCATGCAGGTACGTAGTAGCTGCTATTGCCAGA

Sequence 2109

NGGCCTATCACATAGTCAAACCCAGTCCCTGGCCACTGACAGGAGCTCTGTCAGCTTTCT

TABLE 1

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TAATAACGTCCGGCTTAATCATATGATTTCACTTCTACTCTATCACCTACTAACAACCTAG
GCCTACTAACCAACACACTAACCTTATATCAATGATGACAGTGACATCGTACTGAGAAAG
CACATACCAAGGCCACCACCACAATACTCCCGTCCAAAAAAGCNCTTCCGGTACCGGAA
TTAACAACATATTTTATCANTTCTCNAAAAAGTTATTCTTTTTNTTTATTCGNGCCTTCT
TCTTGAGCANTTTTTANCCACATCTAAAGGCCCTCAGCNCCACAACAACACCTGGCTTTA
AGGNGGGGNCNAATTTGNACCCANCCCANACAAGGGCGATTANCCCCCCCCCTGNAACCC
CCCCATTAGTAAAGGTACNCCCCTNNCTTAAAAACAACCCTTCTTGGNNATTTAACTTTG
NCAATCCTTGGGGGGGTNAAACAAANTCAACCCTGGAAGGCTTCACCNACAAGNCCCTNC
ATTAATAATTAATNGACCCCGAAAAAANCAAAACCAANTCCCAAAGGCNCCCTGCCTCA
TTCACCAATACCTAACTTAGGGTTACCTTAT

Sequence 2110

CGTCCGGGACCTTTATGTCTTGTNAAGATGTCTAGGCCTGGCCGGGCGCGGTGGCTCACA
CCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGTGGATCACGAGGGCAGGAGTTTGAG
ACCAGCCTGATCAACATGGNGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCGGGC
ATCGTGGCACATGCCTGTAATCCCAGCTACTCGGGAGGCCGAGGCAAGAGAATNGNTTGA
ACCCAGGAGGTGGAAGTTGCAGNGAGCCAAAATCACGCCACTGCACTCCAGCCTGGGCAG
CANAGTGAGACTCCGNCTNAAAAACAAAACAAAACAAAAGCAAAACCAGATGTCTAGG
CCAATGATAATTATTTTATGTCATTGTGGATTANGNTCTTTTGTAAACCCCACTGTCTT
GGGGAATGATGCCTGCTGGGAAATTGAGTTTTTGAAGTGAACATGGAACCTTNCCTGCTT
TTTTCTGGNTCCTATGAAGTTTTGGAACATNTGAAAACACAAAACCTCACCTTGAAAT
TTGAGCAGGTCGATGATGGCAAAAAATTATT

Sequence 2111

GCGTCCGCTGATCTGCTTTGGGACGGCCTTTATATACTTCCTCCTTTCCAGGCCTTCCAC
CACCAGTGACCACTATTCGACATCTGGCCCACTCTCAGTCATCCTCCTGCTTATGCTTGT
CTNCTCCTTGAAGGCTTCCCACTGCATGTAGGACAAAGGTGAGATTTTGTAAACAGGCCAG
GCCTGGNCTTATAGTCTGGNATCCACTAATTTATGGTCTNAGTCTNATCCCTTGGAGGA
TTACCTCTGNCCTTNGNAAGCTCTGTGCTCCNG

Sequence 2112

TTCATAACAATTCTCCTACAAATCACCTTAATTCTGACATTCATGGCCACAGAACTAATT
ATATNCTACATTCTATTTGAAACCACCCTTATCCCCACCCTAATTATCAGGTACTAAATG
AGGCAGCCAAGCAAAACGCCTTAACGCAAGNACTTACTTTCTATTCTACACACTAACCGG
CTCTCTACCCCTACTCATCTACTAAGCGCACACCTACAAACAACACAGGCTCACNTAA
CATCACAGCTANCTAACACTTCACGNGACCAAAAAACNTAACAACCCACCTGGGNNCCC
CACAGCANTTACCCTGGGCCTAGCNANTGGCATATATAAGCGCTTTTATGGACCAAAAA
TACCCCTTNTTATNGGGGTCTACACNCTTATTGACTTCCNCANAAGNCCCATGNTTG
AAAGCCCNCAATTTGCAAGGGGNTCAAATANGTCCTTTGCACGNCAGNTACCTTCCTTAA
AACTAGGGCNGGCTATGGGGCAATAAAATACCGGGNTTTAACTCCCCATTTCTTCAAAN
ACCCCTTAAACGGGAAATTANCATAAGCCNTACCCATTTCCCTCATTATTAATCCCTTA
TGGGGGCNATAANTCATAACAAAGGCCNTAAACANTGCCTCCCGACAA

Sequence 2113

TTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGCTACTTTTTAAACAATTTCAACTGCA
GCTCTCTTTCACTAAGTNAGATGGGNAAAGCATGCCATTTCTGTTTNCCTTGNATTTTTA
CTTTTTAGAAACACACATGCTTCCACTGCCATCTGACACTTCTCCACACGCTTTTCATNTT
GTAACCTGAATTTCTATTTNGAGTACCTATCAAATACTTTCTGGAGNGGGGGCACGCTCC
GCTCGGTCATGATGCTGATCCACTTGGGAACATCAGTTCCTTTCTCTTCACTCCAGCGT
CATAGAGATCCCGAGCATCTTGGNNAATCAGTTCATAATCAATGACAGAGCCATCCTCTG
CTCTTCTACCCCTTTGCCA

Sequence 2114

GTGGGGGGGGGGGGGGGNAANCTCGTTGGGACNCGCCCCNAATTNNNANNNAACCNNGNN
CNNNCTNGAGGGCGAAGGNATNNATAAGCTTGAGGGGGGGGGGCTGGANACCGANGNATC
CACTAGTTCTAGAGNGGGCCGCGCCNACCGGGGTGGNGCTNCAGCTTTTTGTTCCCTTTAG

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GGTACCTTGTCTGGAGAATGCAGTGACAGCACCGGCCCATGCTTGAGAACCANGCGGCT
GTGCAGAGGGCAGCCGACCACTATAGCCAGCAGATGGCCAGCAACTGAGGCTCCCCACA
GACACGCTCCAGGAGCTGCTGGACGTGCATGCAGCCTGTGAGAGGGAAGCCATTGCAGTC
TTCATGGAGCACTCCTTCAAGGATGAAAACCATGAATTCCAGAAGAAGCTTGTGGACACC
ATAGAGAAAAAGAAGGGAGACTTTGTGCTGCANAATGAAGAGGCATCTGCCAAATATTGC
CAGGCTGAGCTTAAGCGGCTTTCANAGCACCTGACAGAAAGCAT

Sequence 2122

Sequence 2123

Sequence 2124

Sequence 2125

Sequence 2126

Sequence 2127

Sequence 2128

TATAGGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCAGGTACGGGGAATGGAA
TGAATGGAATGCAATGGAATGGAATCTTCCGGAATGGAATGGAATGGAACGGAA
TGGAACGGAATGGAACGGAATGGAATGGAATGGAATGGAATGCAATGGAATGGAATCTTC
CGGAATGGAATGGAATGGAATGGAATCAACCCGAGTGCAATGGAATGGAGTGGAATCGAA
TGGAATGGAATGGAACAACCCGAATGGAATCGAATGTAATGGAGTTGAATAGAATCAATC
CGAATGTAATGGAATGGAATGGAACCGGAATGGAATTGAATGGAATGGAATGGAATGCAA

TABLE 1
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TGGAATGGAATCAACCCGAGTGCAATGGAATGGAGAGGAATGGAATGGAATGGAAGGGAG
ACTACCCGAATGGAATGGAATGTAATNGAGTGTAAGGGAATTGAATAGAATCAATCCCAA
TGTAATGGAATGGAATGGAATGGAATGCAATGGAATGGAATCTTCCGAATGGAATTG

Sequence 2129

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACNCGGGGNACTGAAANTCCA
CACGACANAATAGCCAGATCTCAGAGGAGCCTGGCTAAGCAAAACCCTGCAGAACGGCTG
CCTAATTTACAGCACCCATGAGGAAAGGCCACTTANGGATGCAGCAAGAAGGAGCCATCT
GCAATCCAGGAAGAAATTCCTTGCCAGGAACCAAATTGGTTGTACCTTCATCTAGGACT
TCTAGCCTCGAGAACTTACAAATGGTGATGATCATCAGGTCAAGGATAGTC

Sequence 2130

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAAGTAAAAATCCAC
AAGACAGAATAGCCAGATCTCAGAGGAGCCTGGCTAAGCAAAACCCTGCAGAACGGCTGC
CTAATTTACAGCANCCATGAGGAAAGGCCACTTAAGGATGCAGCAAGAAGGAGCCATCTG
CAATCCAGGAAGAAATTCCTTGCCAGGAACCAAATTGGTTGTACCTTCATCTAGGACTT
CTAGCCTCGAGAACTTACAAATGGTGATGATCATCAGGTCAAGGATAGTCTGGAGCAATT
GAGATGTCACTTTACATGGGGAGTTATCCATTGATGACGATGAAATGCC

Sequence 2131

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACTATCATTAAATGTAT
TATATACACTGATACTTTAAACTTGTGTGGAAAACTAACTTATAATTTTGTATCACA
CACCTGGATATGTGTTCTGTTTCTAAGCGACATTTGTGAGAGATTATTGTAATGAGA
GCGAGCAAATAAACTTAATTTAATCTTTGCAGATACATACTTATGGGAAATTTGAACAA
ATGAGTGAAACTCTGTGTTTTAGTAGGCTGTGATAAACATTTCCGGGCACCTTGCACAAA
GGACTTTCTTTTTGCCGGGNGCTTTAATNANTTAATAAAAAATTTTTTAAAGTTAAAA
AAAATNGTGGNAAANAAAACTTTTTTTTTTTNTTTTTAAAAANNAGGNTTNNANNAAC
NTTTNTNTTTNGCCGNANNAANCCCCCCCCCGGTTTNCNGGGGAAANAAAAAAAT
NNGGGCCCNCCNTTTNTTTTTTNCNGGGGGGGGGGGGGGGGGGGGNTTTTTTTTTTGN
GAAAAGNGNTGTTTTTNNCCCCCCCCCCCCCTTTTTTAANANAAAAAAATTAATTGGG
GGNNNTTTTTTTTTTNNATTNNNNACCCCCCNCAATTNGGTNTTTTTANNTNAANANC
CCCCNGGCCNTTNTNATANATGCCCCCNCCCCCCC

Sequence 2132

GAGGTGGTTACATTCGTGCGAAGGACACCAGCTGCGGAATTTGCGGNTTGGCAGATTGAA
ATCATGGCNGGTCCAGAAAGTGATGCGCAATACCAGTTCACTGGTATTAATAAATATTTT
AACTCTTATACTCTCACAGGTAGAATGAAGTGTGACAGAATCCATTCTCATTCTTACT
TGCTACATTATGACCATGAGGAGGGCANAGTAGAGGTGAAGTCTCTGTATACTTGCTGAA
AGTCTTCTGTACCT

Sequence 2133

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACTTTCAGTAAGAGATGGG
GTTTCACTATGTTGGTCACTATGGTCTTGATCTCTTGATCTCGTGATCTACCCACCTTGG
GTTCCCAAAATGTTGGGATTACAGGTGTGAGCCACTGCACCAGGCAAAGTGCATCTTTT
AGTGGTGCCTCTTCTCTCTTTTGAAGGATGTTGTCCCTTAAGGAAACCTGGAGGCT
ACTACTGTGATACACTACTTGAGAGATGGATTGTTGCTCTTCTCTACAGTCTTACANG
GAGTAGATTATAAGACGGAAGATGTTACCATTGTCNTTAATTGTTGGAAGCTGANAGCT
TTTAATTTTTGGTTNCAACTGTTTTGNGGGANNTCCCGNAAAAATTTNNNNNAATTTT
TNTTTTTTNGGGAAAAGGGGCGCNCNTTTTAAAAACAGGGGGGGGNGGAAAAAATTTGN
GGGNGGGGGGCCCCNNCCAAAAAAGGGGGGTTTTTTNTTNCNGNNNCCCG
GGGGGGGNGGNCNNTTTTTAAANCCTTTTTTTTGNNTTNCNCNAAAAAANNAACC
CCTNNNGGGGNGTTTTTTTTT

Sequence 2134

CCGGGCAGGTACAAGAGATAGAAAGACCAAGTCTTGCTGAAAGACAAGTCTGAATGCTCC
ACTTTTTCAATTCTCTCTCCATTCTTCAGTAAGTCAACTTCAATGTCGGATGGATGAAAC
CCAGACACATAGCAATTCAGGAAATTTGACTTTCCATTCTNTGCTGGATGACGTGAGTAA

TABLE 1
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ACCTGAATCTTTGGAGTACAGGACAATNAAGACTACTCCTATNTGCGGAACAACTAGCTT
TCTATTTAGTTCTAGAATGTTGAACTGACCGATTGGCTGACATAAAAGTCACATTTTAC
AAAAAAGTGTCTCCAAATGCTTTGACTAGGGGAAAAACCCCTTTTCAATTAGAGGGAGCC
ATTNTGCAACAAATTTCCACAAATAATTCGCTTATTCCAAGGGGCAANGGCACCATTG
ATATNGGGAAATTTTTTGTNTTNGNGCCAAAATTTAAGGGNA

Sequence 2135

CGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCCAAGACTCAGCACTAGTCTGATG
ACCTGCTAATTCAGTACAGCATAGGGCTGTCTGTTGTTTTGCGCAAGTTGGTGTGAAC
AAAGTTCACAATATCTGGTGAATAGGAGCCTTGAATACAGCAGGCAAAGTGACATTTT
GCCAGATGACTCCCCCTTTTCGGAGTACCTTGTTCAAAAAACACCGCTGAGTCACATTCCA
GGTGCTGTTAAGTTTTCTTAGTGAAGATGTCTATACCAGAGGGAGCATAGTTCAGATG
ATTCCTCAGCGGCAATGTAGTAGTGTCTAACATGCTTCCCACGGATATTATCCTTTTGA
TGAAGACTTTGTTACACTCCTGGACCTGGAAAAAGGCTTGCAAACCGGC

Sequence 2136

TNGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTGAATGTAGAAA
CAATGAGGATGGACCTGGTTTAATAATGGAAGAACAGCACAAAGTGTCTTGAAGAGCCT
TGAACATAAAACACAGACACCTCCTGTGGAGGAGAATGTAACCTCAAAAAATTAGTGCCTG
GNAAATTTGGGCTGATGAGCTTTCTGGATCCTAAGCCACCTACCGAATTNTTGGANGGTT
GGCTGNNGGTGTGGGGAAACACAAGTCTTTTCCAATTTTACAAAACGAACCAATTGACC
CCAGGGACTTNTTGGTTTATTGGGTGGGG

Sequence 2137

CCGCGGTGGCGGCCGNGTNCNCGGNGCCNGAAGAGGAAGATTTCTGAAGAGTGCNGCTG
TCTGAACCGAGCCCTGCCNAACAGCTGANGAATTGNACTGCAACCATGACTGAGAACANT
AAGAANTCCTTGGAGAGCACCTACGGCAACTAAAATGCCATTTACCTTGNAACTTGAT
GGAGGGGAGAAAACT

Sequence 2138

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNCNGGCCAGGTACCANATGAANNG
NNAAGACAAGGCCATNCNCCACTTTATAGAGGGNGTNAAANTAACCANAGNTCCNGGGA
GAAAGAAANG

Sequence 2139

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTGTTTATCATATTTAGGTTATTTATT
AATGAAAGGTATNTGANATTTTCAGGAATACAAATTTTGACCCCTGATGACCTCAAATGC
GTGCAACAAGATGTTTAATACANGAAAATAACACAAAACTGTTGTTACAGTGGTTAGAA
TTTTAACTTTAAAAAACCATGAATTTGTATTGNTTAAATTGCACAATAAAATAATGTTG
ATATATACTTAAGCTTAAATTAATTNCAACANGGNAAACATTTTCCAACCCAGAGGTGTG
GCCTGATGTTGGGGTTCAANTCTGGACTTNTATTTTTTGGGTANCACACTCAACTTTTGA
ATTGTNTTAAGGGNTTATTTCNANCCATTCTAACTCTANGAAAAATNTTNAATTNCGT
TTCCCAAAGNCATTANCCGNGGAATTTTTTGTGATTTTCTNCAAGAAAAAATTTTTCGG
GAGGTAAAAGGAAGNGTNTAATATCACTTAATTATCCCAACATTTTCTAAAGGGGGGG
GGAAAC

Sequence 2140

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTATCAGCTAATTGGGCTCCTTT
GAAATGCTGAGGATCTGCTTACGCAGGTAACTCTTTGAGGAAGGGGGTNGGGTAAGTAG
CCCTTAATGTCTTGTAATCAAGGGGCCAGATGGCGTTCGTCAGGCTTTCCAGCTAAGG
GAGAGTCTACTCATATGGGAAACAAGCCTAGGTAATTAAGGAGACAAAAGGGAAAATTT
AAAAATAGGGTTAGTAAAAACAAGGTTAAAAATAGGGTTAGTAAAAACAAGGTCAGGCA
TTACAAAAGGATTCTCCTGTCTCAGCCTCCACTGGGATTACAGGCTCGCACCACCAAGCC
CAGTTAACTTTGTATTTTAGTACCTGCCCCGGGCGGC

Sequence 2141

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTT
NTNAGCAAGCACGTGCACCTTATTGAATGACACTGTAAACAGGTGTGTGGGTATAAACTG

TABLE 1
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CTGTATCTAGGGGCAGGACCAAGGGG

Sequence 2142

TGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTCTTACCCTTGTCCTCTCCTAA
AGGGAGCACAAGGAACTGAAGAGACTGAAAAAGAAGAGAGTTTGTAGCTGCAAAAAGAT
AGGGATAGCAAGGAAACCCAGAACTGCATTCCCCTAAGTGGGGCCATCCCATGTGATTGA
ATTGTCCATAGCTTGCCTATGGTGAGAAATGTGCATGCTCCGTGAGCTGGTCTCTTGAAA
CAGGACTTATGCTTCCTCTATATTCTGGTTAAATTTTCAAACACATAAGTTCCTGAGC
ACAGATTTCTTATCCAGAGACAAGTAGAATCTAACCGCAGACTGTTGGCAGAGTTTCCAG
GCACTTAGCCATGTTCCCTTCTGACTCAAATCCCCAAAGGCCCTTCACTCTCACTGAGAA
TCACACTACTGTCCCATAGATAAGGCAGGCATTGAAGCACCTGTCGTGATCCTCTAGGGG
GGAGAATGAAAGGTTATTTTCTGCATTGCATCATCATAGCTTTTAATA

Sequence 2143

AGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNGGNGCINNNGCTCTACAGAATAGAGGCN
ATNCTTTAGCTTAAGCCTGTCTGCTGACCAGAGAATGGAATTNTGCGTGGNCTCANGGAA
CAAAAGGAACTAGGCAGGGAAGGGGAAGAAAAGTGC

Sequence 2144

GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGNGGNACTTNTTTTTTTTTTTTTTTTTT
TTTTATAACTGATAATTCTTTATTACTAAAGGTTTATTTACATAGNGTTTANNGCNTAAT
AAAAATAAATTACAATACAAAAGTGCTNTTTAGGAAGGAGACACTAAACAACAGGCCCA
TNTTACCCTTGCTNTTTNGCCAAGACATAAGCTACAAATTTTGCCGAAAAACTGNCCA
TACATTTTTAACTACTTCTTCATTATTCTTATGGACCATCATCCAGGACATNTGTTTGAA
GAAATATCCAGTTATAATATTTTCAAAGGNTNGAATTGNGAAGAAAAAATATAAATGT
GATTAAGGATNTNTAGCCTTCAGATGTAATTTACNGGGTTTAAAAATTGGCCCTTTAA
AACTTTTGCTTTTTTAGACNAGNNNTAAAAAGGCACAATGGAGACNCCATATTGTTANTG
GATTTTCANAACNGGGGNTCTTNTGNGNAATNCNTACCANTTTTTTT

Sequence 2145

AGGCACNAGANGANTTTNCTTTTTTTTTTTTTTTTTTTNCTGNNATACAAAGAGCAGATT
TTTATTGAAGTTGGGCNATACTATATTNCCATACAATNTAAATATTCATGAATAGTTTC
CCAAGTCTGGAGCGACCACATAGGGAGAAAATGTAAATGTCTCAATTTTTGGTTNCACNA
AAATGTTTTTTTATATCAAAATTTGNTTNTNAAAGCTTGGNGGATTAGCTTAAAAANA
AAAAAAGTTTCTTGAAATCNGGGAAACAAGACATTTTAAATGAATCAANCAAAATTTT
AAATTAAAAAATTATGAAAATATTATCCTCATTAGTTTCATTTAGTGCCCATGGAAANT
TAATTATTCTCTCTGCTTGGGGGACAAAGTTTCAATGGAAAGCCTGTCAGNT
TAANTTCATTAAGTTT

Sequence 2146

GCTCCCCGCGGTGGCGGCCGAGGTACAAAGGAATAAAATGTTACAACCTAAAAAACAA
AACACCGTAAACATTTAGAGTAAACATGACAAACGTGCTGCTTTAGAGGAAAAGAAG
TTTCATTTGAAGAATTTGGACTTCAAGCTACAACATCTCAATGAATAAGTGCAAGACAAA
TTGAATCATGCAAGGATTGCCGATTACAAGAAGAATGGGTCGTGAAGGACACGTTAACAT
AAGAATCTTCCCTCATCTATCTTACTAAAAAGCCTATTGGAGTTAGAATGGGATCTGG
TAAAGGTTGAGCTGAAAAATGAGTAGCTGTTGTTAAAGAAAATACAGTTATGTTTGAAGT
TGGTGGAGTTAAAGAAGAAATAGCTTCGTGATGCACTTCGTTTAGGTGGACACAACTAC
CNTGTTAAATGGAANGAATAATTNNGCANGGGAGGAATAATGGAATTCAAAGATTTAAAG
AAAAAACTACTGAGCATTTTGAACCGTTATTAANTTGAATATTAAATCAGAGCTTTTT
ACCCCTTCGTTTTAGAAATTAACCTCAACCAACTNGGATCATNCCTCNAAAATTCAAAC
AAGGTTAGAAAANGGTTTTNCCCGGAATTTTACNNCAATTTAGCCACCCAAAAA

Sequence 2147

TCCCCGCGGGGCGGCCGAGGTACATNTGCCTGNCTNCCTNCTGTCCTTCCTTTTTATTAT
AAGGATACATTTATAGNACCCCATAGAAGGAAAAGATAAATTTCATAGGCTGNTAAAAGA
GGCTAGGCCTAAGTTATAATGCCTCCTCCTCACAGNCCAATTTNCCCAAGGGGCNTTANC

TABLE 1

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ACCAGAGCAGNTTTTCTAGCTTGNGGACAATNCCNNCAGGCTTGAGTGATAATGNCCCNG
TNGCGGTAGCTCTCCACTTGNTNAAGGACCAANACACCTTAGCAG

Sequence 2148

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTT
TTTTTTGACTTTATATATAATACTTTATTTTATACAATTCAGTATATCATGTTAACATA
TTTCACTTTTAATTTTATGATATGTGTGACATATTTTAAATTTTATGGATTCAATTATAC
TATCATAATTTTTTAAAGTTTGTATCTTTCATTAATAAGGAGGNTCCTTATTAATGGAT
TTTTTTTCTGTAGCTTCTGAGAACACATTTTATAGATACCCGGCTTCTAGTTATACCTGA
AGCTCCACAGTGTAGACATGTTTTGGCCAACCTTGTTTTATCGGTGTATGAAATTTGTGC
TAATAGGATGGATCCAATTGTCATTACATTAGAAAATAATGGGAAACATTTCTT

Sequence 2149

TCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTT
TTTTTTTTTTTTGACTTTATATATAATACTTTATTTTATACAATTCAGTATATCATGT
TAACATATTTCACTTTTAATTTTATGATATGTGTGACATATTTTAAATTTTATGGATTCA
ATTATACTATCATAATTTTTTAAAGTTTGTATCTTTCATTAATAAGGAGGTTCCCTTATT
AATGGATTTTTTTCTGTAGCTTCTGAGAACACATTTTATAGATACCCGGCTTCTAGTTA
TACCTGAAGCTCCACAGTGTANACATGTTTTGGCCAACCTTGTTTTATCGGNGTATGAAA
TTTGTGCTAATAGGATGGATCCAATTGTCATTACATTAGAAAATAATNGGGAACATTTTT
TTTTACATTNGGGGCAACNTACCAAAATTTT

Sequence 2150

CCGGGCAGGTACACGGGCAAAGGGGCTTGAGAAGGCCCGGNGGCGAAGCCGAAGAGAAGC
AACTGTGCCCGGAGAAGAGAAGCTCGCCCATTCAGACTGGGAACCAGCTTTCAGTGAA
GATGGCAGGGCCAGAAGCTTGTCTGACTCCAACATCCGCCTCTGGGTGGTCTTACCCAT
CGTTATCATCACTTTCTTCGTAGGCATGATCGCCACTACGTGTCCATCCTGCTGCAGAG
CGACAAGAAGCTCACCCAGGAACAAGTATCTGACAGTCAAGTCCTAATTCGAAGCAGAGT
CCTCAGGGAAAAATGGAAAATACATTCCAAACAGTCTTTCTTGACACGAAAATATTATTT
CAACAACCCAGAGGATGGATTTTTCAAAAAAACTAAACGGAAGGTAGTGCCACCTTCTCC
TATGACTGATCCTACTATGTTGACAGACATGATGAAAGGGAATGTAACAAATGTCCTCCC
TATGATTCTTATTGGTGGATGGATCAACATGACATTCTCAGGCTTTGTCAACAACCAAGGT
CCATTTCCACTGACCTTCGTTTTAAGC

Sequence 2151

CCGGGCAGGTACGCGGGGNANTGCNANANACNCAAANCNNGNTANTACANTGCATCAAAC
ATGTTCAAGATTNNCCAATTGACGGGATTGGATTNAAAGATATNCCACCACTTTTAGCAA
GATGGNGAAGTGCTAAATNACACAATTAATCAACTGGCTGAGTTAGCTAAAGATGCATAT
GTTATTATAGGTCCANACGCAAGANGTTTCTTNCTTGGGACACCTACTGCANCTNTTTTA
AAAAAACCTTTTATTATGGTAAGAAAACCTAAA

Sequence 2152

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGNNGGCCATTACCCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCG

Sequence 2153

AGGTACACTTCTAGCACCTAGCAGAGAGAGGCTTCACTACATNATGCTTCCTGACATCTC
TCCCTTTGAAGAGCAGTCAGACTCCTGCTTGTCTTCAGACTTAATTTGGGGGTTTAAAC
AGGTGAGGTTGCTGGGGGAACTCTTTTACAACATCTCTCTGAAAGAATCCGGGCTGCCAG
TTTCATTTGGTTTGGGTGTGAGTAGCATGATGGAAAGACAAAAAACACAACCTTGACATC
TGCAGAAATGGGTTCAAATTTTACCTGCAACTACCAATTCTGTGGCCTTGGTTTACAGAA
TTAACTCCCTAAAATTCACTTTTTCTTTGTAATAATGGGGTTATGAACAGTACCAATG
AAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCA
AGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATGCCAAAAATGCGACTTTCTAAA
AATGGAGCAGATTCTGAGGCTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAA

TABLE 1
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ATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCA
GCATCAAGCTGGAATGGGG

Sequence 2154

GNCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCCAGGTAAGTGTGCACGTNGGTTAN
AGGCTGCGTGGCAGGANNGNGNTCAGATTNTCCCCTGCACNGNAATTGGGCTTTNAGGGG
GAAATGGTGGGGCCATCT

Sequence 2155

GAGCTCCCCGCGGTGGCGGCCGCCCGGGCAAGGTACANGTGTGTGTGGGTGAAATGGAGA
TTTGGGAATTGAACTCTCTGCCTGTAAATGTTCCCAAATAATTGTTGTGTGTATGATACC
GTGTATAATAAAAGTATTCTTGTAGAATCTGAAAAAAAAAATGTAAAAAANNNTAA
AATAAAGGTTCTTGGCCCCGCTNTANAAGTAGTTGGATCCCCCGGG

Sequence 2156

CGGCCGCCCGGGCANGGTACGCGGGGACACAAGACATCATCTTGAAGGAAGGATGGCTTT
GGCCAGACCAAGACCGAGACTTGGAGACCTGATTGAGATTTCTCGCTTTGGCTATGCACA
CTGGGCCATCTACGTGGGAGATGGCTATGTGGTCCATCTGGCTCCGGCAAGTCACTGGTG
CAGTCACGACAGTAGGTGTGGCAGCAGGCCTGCTGGCTGCCGCAAGCCTTGTGGGGATCC
TGCTGGCCAGAAAGCAAGCGGGAAAGGCAATAAAATCCAAGAAATTGTCCCAACAACCACCA
ATTNTTACGGAGGAATATTATTTAGCCAGCAAGGAGTGGAGTTTTGGTTTACTTGTATT
ACTGNTTTTNTGGTTCATGGAATCTTTATTTTAATTGGAGTTAAAAANCNCAGGNAAT
GTNTTTTGGAAATTGCACCTTNTTATNGAATTTNTTTTAAAGACACAANTTNGGGCTNTT
CCNAAAAAAAAAAAAA

Sequence 2157

CCGGGCAGGTACCATTGGAGTTTAATTGCTTCGCTCCGATGAATGAATTCCTGGCCAAT
GCACCAAAATGATACGGCTCCGATGACTGGAGGAACACCAGGGTCCTTGGTCTCGCACCA
GTTTAGATAAAATGACACAGACACACATGTAATGGTTTTAAGGAGTGGAGAGTTTATTAG
GCAAGAAGGAAGGAAGAAGAAAACAGCTCCCCATACAGAGACAGAGGGAGGGGGGATTA
GAACAAACAGAACTTCCCCGCGTACCT

Sequence 2158

CCGGGCAGGTACAGCGTCATATAGGCTTTGCCTTTAATGATCTCTTACGGTTAGAAAACA
CAATAAAACAACTGTTCCGGCTACTGGACAGGTTGTATATTACCAGATCATCACTAGCC
AGATGTNACGTTGGCAGATTTGAAGTCCTTTATTGAAATTCATAAATAAAGAATTGTTCT
TTTCTTTGTGGTTTTAATAAGAGTTCAAGGAATTGNTCAGAGTCTTGTAATATGTTATTT
TAATAATCCCTTTTAAATTTTTATCNTGTTGCTGTTTACCCTCTNTGAAATATGNATTT
TATTTTAGATTTGCTAATGNCCANTTCATTTCAAGGNAAAATTGCCCAAAGAGGGGTAT
TTCCCTTTNGGGGGAAAAANNNGGGGNCCNTCTTTACCAAGTGGTAAAANTTTTTTTTCCC
TCCCTTTTAACCCTTTTTGTCTTAATCATTCCAANTGNGGCANGNAAATTTTTTCTTT
AATNCCCCTTTGGTTGAAGNGGCAANGTTTTGTTTGAACCTTGGAAGTTT

Sequence 2159

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCCATCCTACCCGG
CCTGGGCTGACCCATGGGGAAGGCTGGCTAATTCAGTGCTTCTGCTTGGTTGTTACAGGG
CCATTTAGGTTTGGGTGTTTTCTGGGGATGTTAACATGGGATTCAGGCTCACTCACAA
GAACTTTTCCATCTCATGATGGATGCTGTTGGGCATGTCCAATGTATGACTTCATGAGT
TACACAGATGCTAATTCGTAGGGGCACTTGAATCACATGTTGTTTTGTGTCCTATGGT
CAAGCATTCTATCTTATCAGGGCCTACAGTAACATGCCAAAAGTTGCTTCCAACATATTT
CTCTGCTTTGGATG

Sequence 2160

AGTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATCCCCAGTCGTGGCCCTCTGGACAA
GTGGCGGGCCCTGCACTCATGAGGGCTTCCAATGTGCTGCCCCCTCTTAATACTCATTG
TCAATTTGAGAAAAAGGACATATGAGTTTTTGCATTTATTAATGAACTTCCTTTGAAAA
ACTGCTTTGAATTATGATCTCTGATTCATTGTCCATTTTACTACCAAATATTAACAAAGG
CCTTATTAATTTTTATATAAATTATATCTTGNCCATAAAAAAAAAAAAAAAAAA

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Sequence 2161

ATTGGAGCTCCCCGCGGTGGCGGGCCCGGGCAGGTACCCACGTAAAGACGTTAGGTCA
AGGTGTAGCCCATGAGGTGGCAAGAAATGGGCTACATTTTCTACCCAGAAAACACGAT
AGCCCTTATGAACTTAAGGGTCGTTGAAAANAAANGANTCANAANTNTANAAAAAATN
ANGNNCCTN

Sequence 2162

NCCGGNCAGGTACGCGGGGCACAGCGGCTTNCCTTGATCCTTGCCACCCGCGACTGAACAC
CGACAGCAGCATGNCTCACCATGAAGTTGCTGATGGTCCTAATGCTNGNGGTCCCTTTNC
CAACNACTGTTTACGCANGGCTTCTGNCATGCTCCCTTTATTTGGAGAATTGNGANTTTT
TCAAGNACAATTNCAATTNACCAAGTTGTTCTAATNACCTGAAATATCCAACAGANACN
NTTTTTNAANGAAGTTTTCANTAANACCNACAANTGGCCNACTTTACNAAAATTGGCCA
TTATTATTGAAATNTGTAANNNGNANATTGTTT

Sequence 2163

GACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACGGGACAACACAAA
TTACTGCAACTCCAACAACTATGGCAATAACAATCACAGCAATGACCCAAACATCCAAAC
TGTCAAGTATTCCTTCTCAGGTTTAGGATATCCTGGATAATTTGAGACTGGAGGCTTGT
AAGTAGGCCTAGGACCTGAGGCACTGGACGCTGGAGATTTTGTAGTGGAAGAAGTCGACA
CTTTAAGACACTTTGGAAGTGGGGATCCCAAGTACTTGTGGAAGGTGGACACCATCACA
TCCAGGGCCTTCTCCAGAGGGCACGCCATGACAGCAGTCAGGATCAAACCAAGAAAGAAG
AAGCGCTTAGGAGAGAGGGGTTGTAGAGAGGGGGAAAGAATTCCCGCGTACCTTGCCCCG
GGCGGCCCGCTCTAGAACTAGGTGGGATTCCCCCNGGCTTGCCGGGAATTCCNATTTTCA
AAGCTTTNTCGGATNACCCGGCGACCCTTNCAAGGGGGGG

Sequence 2164

ACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGGCCGAGGTACTTTTTTTTTTTTTTTT
TTTTTTCGAGATGGNGTCTTGCTCTGTTGCCAAGCTGGAGNGNAGGGGCGCAATCTTG
GCTCACTGCAACCTCTTCTTCCAGGTTACGCCATTCTCCTGCCTNAGCCTCCCAAGTA
GCTGGGACTACAGNGGCCAGCCACCACGCCTGGCTAATTTTTTGTATTTTAGTAGAGAC
GGGATTTCACTGTGTTAGCCAGGATGGTCTCAAACCTCCAGACCTGGNGATCCGCCACCT
GGGGCTCCCNAAAGNGCTGGGATTACNGGCATGAGCCACTGGGCCCNNGGCAAAAAAACAAC
TTTTTAAAAATGGACCCTGGCCCNNGGGCGGGGCCGTTTTTAAAACTAANGGGGGATNC
CCCCCNGGCCTNGCANGGGAATTTCCAANNATCAAAGCTTTTNTTGGATAACCCGCCNN
CCCCNNTNNGGGGGGGGGG

Sequence 2165

AGGTACAAGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTTGCCAAACTTGTTACT
GAGAGCCCTAAGGAACTAAACTGCCATAATGCCGNGCACAGCTTGNAAGCANTTAGAG
TAAGCAAGATTAGTTTTTCTCCTTCCAGTTCCTCAGCAGGCCTGGCTGAAGGCCANG
AGGGAAGGAAATATAAGAACCAACAATAAAAAATAGCAANTNGCAATAAGGAAGAATGCCA
TCCCCATGGTAGGCANCAACNCAATANATTTNTGGAAACCCACCTNTTCCCGGGATCANGG
CCTTTCCATTTGCTCACCGGATGCNTNACCGCCTGGGGCCGGGGCCGNCTTCTAAGAACN
TAGNTGGGATCCCCCGGGGCTTGGCAAGGGAAAATTTCTAATAATTCAAAGCCTTTAAN
TNGGAATACCCCGTNCGGAACCCCTTCCGAGGGGGGGGGGGGGCCCCGGGTACCCCCA
AGGCTTTTTTTGGNNTTCC

Sequence 2166

CCGGGCAGGTACGCGGNGACGAAGTTCGGTCCAGGTCTCTGACTTCGGGCTTGTTTCGCT
GGTGGCNGTCGGAGCCGAGCCGGACTGGTCAGGATGANACGGACGTGCAGNTCGCCATC
TTCGACAACATG

Sequence 2167

AGGTACTCCTGGGCAACAGCGAGACTCCGTNTCAAAAAAAAAAAAAAAAAAGAAACCAT
TTATTTTAAAAATGATTAGATTGCTATGCCTCAACTCATAGAAGATGAACCTTCAAGAA
AACGTGAAGNAGGAACCGGGNGGGCCANNAATGAAAACAGGCAAGTANAGNTATTANTT
NGGAAAAACATTTTNTCAACACCAAATGTTAAAAAGACTTTCCTTTGNTAAACCTGGG

TABLE 1
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ATTATGAGNAAGAACTTTTTCAATTGGGGTTANNTTCTAGGGATANACTCAAGTATNTTT
GCANCCACCTTAANAAAACCTTGCCATTAGAAAAACCTGNAAAAGGTTTATTGTTTCCCA
GNATAACTTTTCCGTTGTTTTACCCAAATTTTTNTTTAAGAACTTTG

Sequence 2168

AGGTA CTCCAGGGCTTCATTCATATTTCTTCCAATTTGTAGACGAACCCAAGGAGGCTC
AAGCTTTCCAGATCTAATGCCTTTCTCCGAAGTTTCCTTAAAACCAATTTCTTCAAAGAA
TTTGATACTTTTATCCCTTTGTTAATGATAGCCCTGTTCTATTTTATAGCTTTTTAAAT
AATGGATAATTTGCATTGACTGTCAGATTTCTTTGAAATTCCTGNAAACNCGACNCATN
AGTTGGAAAATTGNTATGTCTCTGCATTGTTTTCTTCTACCACNTGGNTTTCATCGCNAT
TAAACAATTTTTTTGAAAAATTTCTCTTTCAAGCCTTTNTCTGTGGATTGGCCTGCCT
TCTAATATTACCAATTTCTTGCCANGGGTCTTAGGATGTAGCCACCCTCAAAAATG
TGGGGCCTTTTTTTTTCCACCTGGCAAGAATTCAAANAATCGGAAAAATAATGGGGCC
NTG

Sequence 2169

CGAGGTACATTTTNAAGAGTTGTTTTTTGGCCGGNNTTCAGTGGCTCANGCCTGAAATN
CCAGCACTTTGGGAGGCCGAGGTGGGCGGANACGAGGGCTGGAGATNGAGACCATCCTG
GCTAACAAAAGAAGAAANCCCGTCTCTACNAAAAATACAANAAATTAGCCAGGCGNNGG
NGGCTGNGCACNCTAGTAGGCCCCAGGCCTACTTTNGGCAGGCCTGAGTGCAGGNAGTAA
TGGNCCGCGCANCCCTGNCAAGNGAAANTAAGGNTNTGCNNGTCCGAGNCCCAAAGNANT
GCGNCCCTTGCCACNCCCAAGGCNCTNGGGCCAAACCAGAAGGCNAAAGGANCTCCCT
ATTCCTCNAANAACNCAAGATATACCNCAANNCGAGGGAGGTTTNGGTTNCTTACCTC
ANTTGGGCNNCAAATTNATAAGGGNTCAATANNANCNAGGNNTAACCAATAAANNACCCN
CACAGGGGNNTCCTTTAACCAACCCNTAAAANNACCTGGGGTCAAGTCCNAAATAAAA
A

Sequence 2170

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCCAGGTACCTGCTGGGAGAAGTT
TCTGAACAACNATATCTGGGATACACAGAAAAGTNTGGAAGANGAGAAAGAAANGCCTAA
ATNGGAATGAGATCCAAGACTAAACGCNAGAGCTAGATTGAGCCGCATTTGAAANCTCCT
TCCNNTTGGGGCNTTGGCAGAGGGGGAGAAAAGGCTTCAAAGGAACTNGGTGGCATNANC
ACCCCTCCCCCAATGAGGACACCT

Sequence 2171

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCCAGGTACTCACTGAGCTCAAGA
CACACTTGGTGCTTGCACTGCTGATACCTGCTCTTTGCCGGCCCCCGCGTACCATCCCAT
GTGGAATCTGTGAGTGTCTCTTAAGTAGCGTGGGCTAGCCAATCTGCTCGTTNATGGGT
GTATTTGTAACTCCGAATTCATATGTAATANGGATGCAAGTCTAAGCGTTTCATGTGG
ACATAAATGTATCTAAATAAACTTTCCCTAGCACTGTGGCTGACCTCACCTTACTTTT
ATACTTTAGTATGAACTGATGAGAACTTTGGTAGNGAGTATTTTTTTATATATATACA
TATATATGTATCTATATATATATATCTCAAGCATCTTTCAGGTCTTGTGTNGTGGNT
TTTTTTAAAGCCCCTGTTGTAAAAAAATTACTATTGTGGGATGGGCAGTCTCTCACATC
ACAGATGTNGAAAAGNATAATTTTTATANTNNGTATTTNCAANAAAAATAAAATCTGGGG
AAAGGTNNCATTCTNTACTGGNGGNCCAAAAAATCAATNGGTTTTGTNTGNCCAAAAAA
AAATATTAATAAATAAATAATANTTNTNTTGAACCTAAAAAAA

Sequence 2172

AGGGTACATTTTTAAAGAGTTGTTTTTTGGCCGGGCGCAGTGGCTCATGCNTGTAATCCC
AGNACTTTGGNGGGCCGNGNGGGCGGATCACGAGGTCTGGAGTTTGAGACCATCCTGGC
TAACACAGTGAAATCCCGTCTNACTAAAAATACAAAAAATTTAGCCAGGCGTGGTGGG
CTGNNAACCAAGTAGTNNCAGNTACTTGGGAGGCTGAGGNANNGANAATGGGCCNTGAACC
TGGAAGGAAGAGGTTGCANTGAGCCAAAAANTGCGCCCTTGCAACTNCAGCCTTGGGCA
ACAAGANCAAGACTCCCATCTCAAGAAAAAAACAAATAAGNAAAAGTACCTTGCCCG
GGCGGCCCGCTCTANAACTAGNGGATCCCCCGGGCTGNAGGGAAANTCTATANCAA
GCTTANNGAATTCGCCNACCTNGGAGGGGGG

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Sequence 2173

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATCCCAGCCCCCAGGTTTCGC
CTAATAGTCTTGGCTACTTCCCTACAGCTGCTAATCTTAGCGGTGTCCCTCCACAGCCTG
GCACGGTGGTCAGAATGCAGGGCCTGGCCTACAATACTGGAGTTAAGGAAATTTCTAACT
TCTTCCAAGGTTACCAGTATGCAACCGAGGATGGACTTATACACACAAATGACCAGGCCA
GGACTCTACCCAAAGAATGGGTTTGTATTTAAGGGCCCCAGCAGTTAGAACATCCTCAGA
AAAGAAGTGTTTGAAAGATGTATGGTGATCTTGAAACCTCCAGACACAAGAAAACCTTCTA
GCAAATTCAGGGGAAGTTTGTCTACACTCAGGCTGCAGTATTTTCAGCAAACCTTGATTGG

Sequence 2174

CCGCGGTGGCGGCCGAGGTACGCGGGGACTCGCGTCGGTTGGCGACTCCCGGACGTAGGT
AGTTTGTGGGCCGGGTTCTGAGGCCTTGCTTCTTTACTTTTCCACTCTAGGCCACGA
TGCCGCAGTACGCGGGGGGGTGAAGAAGGGGCCGCCCTTCAAGCAACAGCGACGCAAGAT
GGCAGCCACCACGGGCTCGGGAGTAAAGTCCCTCGCAATTTCCGACTGTTGGAAGAACT
CGAAGAAGGCCAGAAAGGAGTAGGAGATGGCACAGTTAGCTGGGGTCTAGAAGATGACGA
AGACATGACACTTACAAGATGGACAGGGATGATAATTGGGCCTCCAAGAACAATTTATGA
AAACCGAATATACAGCCTTAAATAGAATGTGGGACCTAAATACCCAGAAGCACCCCCCT
TTGTAAGATTTGTAACAAAATTAATATGAATGGAGTAAATAG

Sequence 2175

CCGCGGTGGCGGCCGAGGTACCTTAAAGTCCTCCTGGCTCTGAAGCTTCATAAGATGCGT
GAAGAAGGTGAAGAGGAAGGNGAAGGAGTCGAGCGGCCGCCGGGCAGGTACTTTTTTTT
TTTTTTTTTTTTTTTTTGGGGTTTATCATATTTAGGTTATTTATTAATGAAAATATATG
ACATTTTCAGGAATACAAATTTTGACCCTGTGACCTCAAATGCGTGCAACAAGATGTTT
AATACAGAAAATAACACAAAACCTGTTGTTACAGGGGTAGAATTTTAACTTTA

Sequence 2176

CCGCGGTGGCGGCCGAGGTACTTCTTACAGTCTTCAGGAAATTCATTAATCAGTGCCTC
CAGTTCCTTTGGCTTCCAGTTTTGAAGGGTCTTCAGAGGTCTTATTCTCCTTTGGCTGCT
GGCTTGCAAGATCAGGATGTACTGTTCTGTTGGCCGAGTGGAGACTGGTGTTCTCAA
CCCGGTATGGTGGTCACCTTTGCTCCAGTCAAGTTACAACGGAAGTAAATCTGTGCAA
ATGCACCATGAAGCTTTGAGTGAAGCTCTTCTGGGGACAATGTGGGCTTCAATGTC

Sequence 2177

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTGTAGAGTGGTGCTGCTTTAATTCATAAATC
ACAAATAAAAGCCAATTAGCTCTATACTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAGGAAAAAAAAAAAAAAAAAAAAAAAAAGGTCCGNNCANTCGNG
GNGGCNTAACNCNCTNGGGNGGNTNTAGGGNTGGAAAACNCTNAAAATNNNTGTTTTN
ANNNGGNTAAAGNNTTGAAATTTGCCAGNTTNTAAAGTCATTAAGNCAAAAGTTTTT
TTAAGGGGTNTTTTTTTTTTAANAAAACCCATTAACNTTCCATTGGGCCTTTANAAANGG
CCCCCGGGGTTTTNGGNNAANTTNTTTTTTNNCCCCNNTTTTTNTGAANAAAAANN
GGGGCCCCCAANTTTTTNGNTGNCCCCNCCNCCCCCANTTGGGGGGNNGGNGGGGAN
ANCCCCNTTTTTTTTTT

Sequence 2178

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTT
TTTTTTTTTTTTTGGCAATTGTTATTTAGTTTTATTTTATAATCATAAACTTAACTCTG
CAATCCAGCTAGGCNTGGGAGGGAACAAAGGAAACATGGAACCCAAAGGGAAGTGCAGCG
AGAGCACAAGATTCTAGGATACTGCGAGCAAATGGGGTGGNGGGGTGCTCTCCTGAGCT
ACANAAGGAATGATCTGGTGGCAANAAATTAACCANTGCTTTTATTATCNANGCACTTNN
CACTATGCACTTTTTCTGAAATATTTTGTAACTTTTTTGTATTTTGCCATTTGAA

Sequence 2179

CCGGGCAGGTACAAATGATGAAACGGAAAGACAAAGGAAATTTCCATTTTGAAGAAAA
AGTGTTCAAGTGTAAATGGAGCCNGGGGAAACCATGGACTTTGGTCAGCTCTATCAGTT
CTTAAACACCAAGGATGTGGGGATGTTTTCCAGATGTTCTTTGGTGTANAAGGACAATG

TABLE 1
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ACATCAAGAGTNGTTGAANGTATCTTGCCACTGNTGGCCTTTTGATTTTTNTCCCACTT
TTTCTTGAAAGATTAAGTAATTTTATTTTAGTTCCATTCTAGAATGTTGGGGAGTGNGGC
ACAAGAAAAAATANTATANCTGAAATGCATCTGTTAAAAATGTNATGATTGNAAGCATAA
CTGAGTTTCA

Sequence 2180

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGTAGCATGCCAGGAAAGGAAGAGAC
TGGGATGGTTTTTATCTGTGCGCTTTCTAAATCAAGGGCCGCCGGGCCGAGATGGATG
GAGGGACCGGGGATTTGGGAACTCGAAAACGAGCTGAGGGAAGGGAGCCTGTGGAATAG
ACTGGAGTCTGGGTAGTGTGCTTTCTAGAGAATGGTCTCGAAGTAACTTCTCGGTAAAG
TCTTCACGGAATTTCCAGACCACGCTTGCCCACTGGGAGGCTTTTAGGACCCGAGACGTG
TGCAGGCTTTCCAGCCAAAATGAAGTTAATCCCTTTGTGACTTCCGACCGAAGCAAGA
ATCGCAAAGGCATTTCAATGCACCTTCCACATTCTGAAGGAAGATTATGTCTTCCCCTC
TT

Sequence 2181

TTTTTTTTTTTTTNGTTACATAAATTAACCCATTTATTATAGGCCAGTGATGTCTCAA
GAGTAGAGGAGCGTCTACTGGTCTTTCAACTCCTTCAGTCTTCTGATGGCGGACTTTACC
GNGACAGCGGAAGTGGTATTGNACCTGATTTTATTTCCAGTTTTATCCGAATCCACTGG
GGAATGGGACGATTTTGCTTTTGTTTCTTGCCAGGAATCGCTTAATCCT

Sequence 2182

AGGTACTCATCGGCCAGCACGGAGATGCACAGGTTAAATGGTTTACCATCCTGAAAGGGC
ATATTGNGGCATGTACCTCATACTGCCAAGCCCCATTACGCGGCTGTTTCATGACCACC
CAATGACCAAAGTACCTGCCCC

Sequence 2183

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGGCCCGAAGCGTT
TACTTTGAAAAAATTAAGAGTGTTCAAAGNAGGCCCGAGCCGCCTGGATACCGCAGGTAG
GAATAATGGAATAAGGACCGCGGTTCTATTTTGN TGTTTTTCGGAAGTGAAGCCATGATT
AAGAGGGA

Sequence 2184

AGGTACGCGGGGACTCGCGTCGGTTGGCGACTCCCGGACGTAGGTAGTTTGTGGGCCGG
GTTCTGAGGCCTTGCTTCTTTACTTTTCCACTCTAGGCCACGATGCCGCAGTACGCGG
GGGGGTGAAGAAGGGGCCGCCCTTCAAGCAACAGCGACGCAAGATGGCAGCCACCACGGG
CTCGGGAGTAAAAGTCCCTCGCAATTTCCGACTGTTGGAAGAACTCGAAGAAGGCCAGAA
AGGAGTAGGAGATGGCACAGTTAGCTGGGTCTAGAAGATGACGAAGACATGACACTTAC
AAGATGGACAGGGATGATAATTGGGCCTCCAAGAACAATTTATGAAAACCGAATATACAG
CCTTAAATAGAATGTGGACCTAAATACCCAGAAGCACCCCCCTTTGTAAGATTTGTAAC
AAAAATTAATATGAATGGAGTAAATAGTTCTAATGGAGTGGTGGACCCAAGAGCCATATC
AGTGCTAGCAAAAATG

Sequence 2185

CCGCGGNGGCGGCCGCCCGGGCCGGTACGCGGGGAAGTAAAATCCACAAGACAGANTAN
CCAGATCTCAGAGGAGCCTGGCTAAGCAAAACCCTGCAGAACGGCTGCCTAATTTACAGC
AACCATGAGGAAAGGCCACTTAAGGATGCAGCAAGAAGGAGCCATCTGCAATCCAGGAAG
AAATTCCTTGCCAGGAACCAAATTGGTTGTCACCTTCATCTAGGACTTCTAGCCTCGAGA
ACTTACAAATGGTGATGATCATNAGGTCAAGGATAGTCTGGAGCAATTGAGATGTCACTT
TAC

Sequence 2186

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTNGGGNA
AAGAAACCTTTAATGAGGATTCAAGGTTAATAAGGAAGACNCAGAGGGCCAGCACTCAGC
CCCAACCTNCTACGTGTACCAAGAAAAATAAAGAAGAGGCTGCAGAATATGCTAAACTT
TTGGCCAAGAGAATGAAGGAGGCTAAGGAGAAGCGCCAGGAACAAATTGCGAAGAGACNC
ANACTTTCTNTCTGCGAGCTTNTACTTNTAAGTCTGAATCCAGTCAGAAATAAGATTTT
TTGNGTAACAAATAAATAAGATCAGAGTCGGTAAAAAAA

TABLE 1

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Sequence 2187

CCGCGGTGGCGGCCGCGGGCAGGTACAAAGACTATTGTAGAGACTATCCGGGTTAGTT
TGCAAGGGAAGCCAATGATGAGTAATTTGAAAGAAATTCACCTGGTGAGCAATGAGGACC
CTACTGTTGCTGCCTTTAAAGCTGCTTCAGAATTCATCCTAGGGAAGAGTGAGCTGGGAC
AAGAAACCACCCCTTCTTTCAATGCAATGGTCGTGAACAACCTGACCCTCCAGATTGTCC
AGGGCCACATTGAATGGCAGACGGCAGATGTAATTGTTAATTCTGTAAACCCACATGATA
TTACAGTTGGACCTGTGGCAAAGTCAATTCTACAACAAGCAGGAGTTGAAATGAAATCGG
AATTTCTTGCCACAAAGGCTAAACAGTTTCAACGGTCCCAGTTGGTACCTCGGCCGCTCT
AGAACTAG

Sequence 2188

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACCCAGGACAAA
TCTCTCCACTTGGAAGGAGATCCCAATCCTTCTGCAGCCCCAACATCCACCTGCGCACCT
AGGAAAATGCCAAAAGGATTTCAATATCCAAACAACCTGGCTTCAGTGAAAGCTCTGAGG
AAGTGCTCAGATCTGGAAGAAAGCTATTGCCACCACTGCTCTGATTTTCAGAAATTTCTCT
GACTCTGATGGTAACTTGAAAAAGCTATTGCCAAAGATCTGCTGCAAACCCAATTTAGG
AATTTGCGCAGAGGGACAAGAAACCAAGCCAAAATACAGAGAGATCCTTTCTGAAGTTGAT
GAGCACACAGAAAATAAGCTAGATTTTGAAGACTTCATGATCTTGCTCTTAAGCATCACT
GTCATGTCAGATCTGCTACAAAATATACGGAATGTAAAAATTATGAAATGAACAGTTTTA
AATATGCTGTATAAAAATAATGGCAAAGACAGTGTTATTTAAATGTTTCCATCTCAAAA
AAAAAAAAAAAAAAAA

Sequence 2189

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAAGTTGAAAGTCACA
AAACCATAGAAAAGTCTCAGTTTCTACTGTAGAATCTTGGCATTTCAGTAGTCACAGT
TAAACTTGTTCTAGGTTTTTCAGATGCTCTTTTCCAGGACTTCATATGTTTTGATATTT
TAAAAATTTCTTTCAACTTTTTTGATTATAAGCCTTGCTTGCTTCGATTTGGGATTT
AGGCATCGTTGTCCTTTATTTTCTTTCAGGGCAATAATCACTTCTATTTTGTACAGTTG
TTACTTGGGTACCTAAAACCCGAAGAACCTTCTGTAAGAAGTGTGGCAAGCATCAGCCTC
ACAAAGTGACACAGTATAAGAAGGGCAAGGATCTTTGTATGCCAGGGAAGGAGCGCT
ATGATCGGAAGCAGAGTGGCTATGGTGGGCAGACAAAGCCAATTTTCCGGAAGAAGGCTA
AAGACCACAAAGAAAGA

Sequence 2190

CCGCGGTGGCGGCCGAGGNACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TGCNANCACANAGGTGAGCAACAAGTTTATTTTGCAGCTAGCAAGGNAACAGGGTAGGGC
ATGGTTNCATGTTTAGGTCAACTTCTTTGTCGNGGTTGATTGGTTTGTCTTTATGGGGG
GGGGNGGGNNAGNNGAANTCCAATNTGAATCCACAGAAACCAGGGGCTGTANAAACANA
ACCTGANAAGAACGAGCACTCAACCNAGCTNACTNNGGTTCAANNANAAAAAATNCCAANA
AGGAAAGCCAA

Sequence 2191

CCGCGGTGGCGGCCGAGGTACAAAGATAAGTCATCTCAGTAAAAGGTCTATTATCTAACT
TGCCAAACTTGTTTACTGAGAGCCCTAAGGAACTAAAACCTGCCATAATGCCGTGCACAGC
TTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTTCTCCCTCCAGTTCTCAGCAGGC
CTGGCTGAAGGCCCAGGAGGGANGGANTTTTNANACCCCTTTAAANNTNNTTTTGCNT
TAAGAAGAGNCCCCCGNGGGNGNCNCCCTTTTTTTTGAANCNCCCTTTTCCCCGGGA
ATNAGGGTTTTTTTTTTTTTTNAAAAANTCCCCCNNGGGGGGNGCCNNCNNTNTTTTT
TTTTTTTTTTNGAANCCCCCCCCCCCCCNNGGTTNNNNCNNTCCTTCTTNACAAAAAAA
AAAAAATTNCCNCCNCCCCCAAAAAAANNNNTTTTTTTTNTCCCNCCNCCCNNTTTT
TANAAAAAANAAAAAANTTTTTTTTTTTTTTTTTTTTTT

Sequence 2192

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACGCGGGGGCCGAGA
GAAGCAGTAGTCAATAAAGAGAGTGCCGTATTTGCGAGATTGGAGCTGAGCTGTGGCTGC
CAGAAGATAGCGAACGAATGGAACTGAAAGTGGAAATCAGGAAAAGGTAATGGAAGAAG

TABLE 1
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AAAGCACTGAAAAGAAAAAGAAGTTGAAAAAAGAAACGGTCACGAGTAAACAGGTGCT
TGCAGATATTGCTAAGCAAGTGGACTTCTGGTTTGGGGATGCAAATCTTCACAAGGATAG
ATTTCTTCGAGAACAGATAGAAAAATCTAGAGATGGATATGTTGATATATCACTACTTGT
GTCTTTTAACAAAATGAAAAATGACTACTGATGGGAAGTTAATTGCCAGAGCATTGAG
AAGTTCAGCTGTTGTAGAGCTTGATTTGGAAGGCACCAGAATCCGGAGGAAAAACCTCT
GGGGGAAAGACCAAAGGA

Sequence 2193

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTGTCCATGGGTCCACAA
AATCCTCTTCAGCTTCTGTGGCATCTGGGCCATGATTACTGGTAGGTGCTGGGTCCCTG
GAGGACAGTCAGCCTTGTAATCCTCCCCGCGGCAGCTTTGTAGCTCATTTTTATGACAC
CAACATCTTTACTGCAGAAATCAATTTATCCCAGGTTGTGGAAGACACTGCAGAGGTGGC
CACTGGTCACGCTGGGCAGTTGAGCTGCTGAGAGTCCCCGCGTACTATCTTCACTCTTT
TTTTTTCAGAAAGCCAATGTTCTCTAAATCTGCAGCTTCATTCCACAGCTTTACAGAAATCA
TAATCTCTTGAATATATTTCCAATGTTATTAATAAAAAATCAACAAGATATATTT
AGCACATTAACCTTAAGAGGTTACAGTATAACTGTCCAGACCTCCAGGTACCTGCCCGG
GC

Sequence 2194

GTGGCGGCCGCCGCCAGGTACATTTTTAAAGAGTTGTTTTTNGGCCGNGCGCAGTGGCT
CATGCCTGTAATCCAGCACTTNGGGAGGCCGAGGTGGGCGGATCACGAGGTCTGGANTT
TGAGACCATNCTGNCTAACACAGTGAATCCCGTCTCTACTAAAAATACAAAAATTANCC
AGGCGTGGTGGCTGGCACCTGTAGTCCCAGCTACTTGGGAGGCTGANGCAGGANAATGGC
GTGAACCTGGAAGGAAGAGGTTGCAGTGAGCCAAGATTGCGCCCCTGCACTCCAGCCTGG
GCAACANAGCANGACTCCATCTNANANAAAAAANCAANGAGNNGTTTTCTNA
TGTTCAATTATAGGGCATTACAGTTACATNGNCCGAAGGTCTTACAACTAATCACTGGGTA
GCAATANATGCTTCNGGCCACATGATGCTGATTAGTTCNCANTTTTCATNCAGTTGACA
ATATTAACCCCCATTNCTCCCTCCCTGCCCAAGGNTCATAAANTNGTGACTGCCTAACAA
CCAAAATTNGGAAGGCCANTCTTNATTTTCANTCAGACTTCTTGGAACCTGAAAGATTA
AACNTTTTGGCTAACCTGGAATATCTTTTATCTCACTTATAGCNTTNAAGGCCATTG
NATNAAAACNTGATTTCTTGGAAGGGCCATACCCATAAANTCAAGGGGGGTTTTCTCTG
AAAAGTAAANGNTTCCAAATNAANNCCAAACANTTTCAACCCCAAAAAAAAAAAAAA

Sequence 2195

AGGTACACTGAACACCAAGGCTCTCACTCTTGAGTCTAGGGCACCATATATATAAAGGGA
GTTCCGAACTTGTAAGGCAATCCTATTGTTTCGTAGTCAAATCACACTGAAATCCGGAGG
CCTGGTGTGAGAACCTACNAGCGGACACCGGGCATTAAATATTTTTGCACACCCACACA
GCCAGGGCCAAAGTGGTCAAGGCACTCTCCTAACACAGACAGGATCTTCTGAGTTGCAAT
TCTTTCTGAAGGAACATTTTCACTTGAAATCCATCAGAAAATTTCTGAGATCTTGTG
AGCGCTGAGGTTTCTGGTTTCATCTAGATCCAAAAACATGTCCAAATCACATCCTAACTT
CCCAAAGTGTGACTGAGGAGCCAAAGGGTCTGACTATGCAGTCTGGAAAATACCCCGG
CGGCCATGTCTTCAATAAGAGAACAGGTGAGATATCGGAGCTTAAGTGTTCTCCTCTGTT
AGCTGGAACCTCCTTCAAGAAGAGTGTTCAAGCTTGATCCGTCTATACTTTCTGCATAACA
AAGTAATTCAAAAAGCTGCTTGTTGAACCGTGGCAACTGANTACTTGACCCGTACCTTG
CCCCGGGCGGGCCCTNTAAGAACTAGTGGATCCCCCGGC

Sequence 2196

CGCCCGGGCAGGTACAGTGGTCCTTTTTCAGAGTTGGACTTCTAGACTCACCTGTTCTCAC
TCCCTGTTTTAATTCAACCCAGCCATGCAATGCCAAATAATAGAATTGCTCCCTACCAGC
TGAACAGGGAGGAGTCTGTGCAGTCTGACACTTGTTGTTGAACATGGCTAAATACAATGG
GTATCGCTGAGACTAAGTTGTAGAAATTAACAAATGTGCTGCTTGGTTAAATGGCTACA
CTCATCTGACTCATTCTTTATTCTATTTTAGTTGGTTGTATCTTGCCTAAGGTGCGTAG
TCCAACCTTTGGTATTACCCTCCTAATAGTCATACTAGTAGTCATACTCCCTGGTGTAGT
GTATTCTCTAAAAGCTTTAAATGTCTGCATGCAGCCAGCCATCAAATAGTGAATGGTCTC
TCTTGGCTGGAATTACCAAACTCAGAGAAAATGTGTCATNAGGAGGAACATCATAACC

TABLE 1
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CCATGGANGGAAAAAGCCCCCAAATGGGTGGGAACTGGATAATAAGCACTNATGCTTT
AAGAATTGGGCACACTTCTCACCTAAGGTGAGCGCATTGNGNCCAGGGGGTGCTTAAATG
CTTACATACCTCCAACCTGGAAATGGNTAAGGGAAGAAGATTGATNCCAATTTNAAAAAAA
AATTTAAANCCCANTTTTNAAAAAAA

Sequence 2197

CGCCCGGCAGGTACGCGGGGGTGGAGAGAGGCCTCTAGACTTCAGTTTCAGTTTCCTGGC
TCTGGGCAGCAGCAAGAATTCCTCTGCCCCCATCCTACCATTCACTGTCTTGCCGGCAG
CCAGCTGAGAGCAATGGGAAATGGGAGTCCCAGCTGTCTCGGTGCCTGCTCAGAAGCTG
GGTTGGTTTATCCAGGAATACCTGAAGCCCTACGAAGAATGTCAGACACTGATCGACGAG
ATGGTGAACACCATCTGTGACGTCCTGCAGGAACCCGAACAGTTCCCCCTGGTGCAGGGA
GTGGCCATAGGTGGCTCCTATGGACGGAAACAGTCTTAAGAGGCAACTCCGATGGTACC
T

Sequence 2198

CCGGGCAGGTACCAAAATTGTAAGAAGAAGCTTGGGAAGCTGCCACCTCAGTATGCCCTG
GAGCTCCTGACGGTCTATGCTTGGGAGCGAGGGAGCATGAAAACACATTTCAACACAGCC
CAGGGATTTGCGACGGCTTGAATTAGTCATAAACTACCAGCAACTCTGCATCTACTGGA
CAAAGTATTATGACTTTAAAAACCCCATTTGAAAAGTACACAGGAGGCAAAGTGTTC
ACATTATAGACTTCACTTCCAACCTCCTTGAATGTTCAATTTCTTTGGCTTACAGGAGAGA
CTAGACAGGAAGGCCAGGCAATGCTTAGGCAACTAAAATGAGGTTGGGGGTAATGCTAAC
GTCACCCTCACAGGGATGGCCACGGGGACTGTTATTCGCAAGCTGGTTTTCTAGGCCTGT
TAGCTGGAAGCATGGTGAGCACCAATTTCTGGGACGCTCAAGGCCGTGTGCGGGCTTCAA
GTCATCTTCACCACACCANGTACCTTNGGNCGNNTCTANNACTANTGGGATNCCCCCGG
GCTGTAGGGAAATTTNANTTTNAAGCCTTATTCGATTACCCGTTGANCCTCTGGGGGGGG
GGNC

Sequence 2199

CCGCGGTGGCGGCCCGAGGTACAAGATNGNCATCTCAGTAAAAGGTCTATTATCTAACTN
GCCAACTTGTTNACTGAGAGCCCTANGGAATAAACTGCCATAATGCCGTGCACAGCT
TGAAAAGCAATTAGAGTAAGCANGATTAGTTTTCTCCCTTNCAGNCTNAGNAGGCCTG
GCTGAAGGCCANGANGGAAGGAANTNTANNANCCANCANTAAAAATAGCNATATGCAAT
NNNAAGAATGCCATCCCATGGAGCACACCA

Sequence 2200

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACACAATTTTTAGAAT
AGTTGATGTCTTTAAGATGGATATTTACAATTTCAAGTAAAAAATAACAACATGAAGCT
GCTGCTGTACAGATCACTGTAGTAAAAAGATATAAATGCAATACCATGTCGTAGAACAA
TATATATATCCTCTGATATTTACAACTTTGTACTGTGTCCAACAGCTGAAGGAATTTG
AGGGGAAGACTTTAGTGTGAGTACCAAAGAAGGCCTGGAAGTTCAGAGGATGAAGAAG
AGAAAAAGAAGCAGGAAGAGAAAAAACAAGTTTGAGAACCTCTGCAAAATCATGAAAG
ACATATTGGAGAAAAAAGTTGA

Sequence 2201

GCTCCACCGTTTTGGCNCNCCGAGGCCCTTGTCTCTTCTTCACTGACTTAAACAATTC
CAGGATCAGAAGAGAAGCCATTTTGACATCCTCGATAAACTGGGGATNNGCTGNANTTC
TGTCTGTTACGAAGTGGTTGAAAAACAATTTGAGATCCAGAAGTCTTGATGGGTTTAC
CATCCAGGTGTTCAAAAAATCAGAGAATCTCTTTCGAGGTGCTGGCCGCCCTTCAACGC
TCTGAGTAAGCATTGCTGGGTGTGAGGAGAGAAAAAGCCAAAGAAGCGGGTGCCAGACAGC
TCTGTGCAACCTCTAGGCCATGAGTGGGATAGATACCACTGCTGCTTTAAAAAATGGGAG
ACCATAGACCCTCAGGAGAAAAAGAAATCCCTTCTACCCTGGACTCGCTCTCTCTGGA
CTAATTCTCCCCATACCCTGATTGTCTTTGGAGAAAAATGTTCTGGATTCTAGAATCTA
AGGCAGAGCCTTTTAAGCCATACTGTACCTGCCCG

Sequence 2202

AGGTACAGACAGGGTTTCTTCATGTTGGTCAGGCTGGACTCGAACTCCTGGTCTCAACTG
CCTCAGCCTCCCAAAGTGCTGGATTATAGGCATGAGATACCGTGCCTGGCCTCCATCACT

TABLE 1
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GATTCTATGTATGCACATGACTCCTTTTTTACTTTTACTTAGGAGGCTTAAACACAATT
ATTCATTCAATATAATTATAAAGCAGAGTCTTTGTTAATTTCTGAAGTTGGTAAAAACAT
TTTTTATATTTTATCTATAGCTCATTAAATTTAGGTATCAAAAATGTGTTTTAGTTTAGGT
AGCCCAAGCTGCCAATTGTTTGATATCATCATCCTCTCTCTCTGCCCTCTGGGAAGATGC
TGCTCGGGATCGAC

Sequence 2203

CCGGGCAGGTACTCCAAAGATTGAGTTTACTCAGTCATCCAGCAGAGAATGGAAGTC
AAATTTCTGAATTGCTATGTGTCTGGGTTTCTCCATCCGACATTGAAGTTGACTTACT
GAAGAATGGAGAGAGAATTGAAAAAGTGGAGCATTGAGACTTGTCTTTGAGCAAGGACTG
GTCTTTCTATCTCTTGTACACTGTATGCATCATCAGTCCAAAGTTTTTCAGAGTTCTATG
TGACTGGTTGAGGAAACACTGCTTGAATTTCCCATAGCCTCTGCAGCGGCATCACTGTC
TATGAACTCTTGAAGAAGCTCTTTGTATTGAGGTATAGATATGTCGGAATTGATGGTCTT
TTCAACCATGTCCTCCAGGAGTTTGAGCCAGAATCTGCATAGCAGTGAGGAGGAGGGC
CGCCAGCATGAGGACCATCAGCAGCTTCATGGCGAGGCGGCTGCTGTCTGTGTTGAGTCG
TGTGTGGCAGGGATCAAGGAAGTTGCTGTCCCCGCGTACCTN

Sequence 2204

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CTGGTTGNCAGGATTCAA
GCCGAATGGCTTGCCTNANAGGGNCAATGGCGTTCTGAGATGGTGGCCA

Sequence 2205

ACACTACTATAGGGTGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCTTGGTTTAT
CAATGGGACGTTCCAGCAATCCACACAAGAGCTCTTTATCCCCAACATCACTGTGAATAA
TAGCGGATCCTATATGTGCCAAGCCATAACTCAGCCACTGGCCTCAATAGGACCACAGT
CACGATGATCACAGTCTCTGGAAGTGCTCCTGTCCTCTCAGCTGTGGCCACCGTCGGCAT
CACGATTGGAGTGCTGGCCAGGGTGGCTCTGATATAGCAGCCCTGGTGTATTTTCGATAT
TTCAGGAAGACTGGCAGATTGGACCAGACCCTGAATTCTTCTAGCTCCTNCAATCCCATT
TTATCCCATGGAACNCTTAAACAANGGGTGGTTTTGGTTCCTGAAGCCCTTTTTTGTCT
GGGGAATGGGGCACCTTAATGGAAAATTTAAAGGGGAAAAANCCCTCAGGCCTGNNGGGGG
NGGGCCCCCTTCACAGCCTTTTNCCTTAACNTAGAAAACGGGGAAAAATTGNAAACCATTGG
GGGAGAAAATGGACNACTTNCNCACTNTTGGACNGGTTTTTTTCCAAAANTGTNAAAACAA
GAATTCTTTATTAATGGAAAANGGGGTTTTACCCCCCTTTTAAATT

Sequence 2206

CCACTATAGGTTTATGGAAGCTCCCGCGGNGGCCTCACTTTTACCTTCTGGAANCCGC
CCACCACTTTCAAGCTCACTATTGAATCCACGCCGTTCAATGTCACAGAGGGGAAGGAGG
TGCTTCTACTTGTCCACAATCTGCCCCAGCATCTTTTTGGCTACAGCTGGTACAGCTTTC
TTCGTCCTCCATGCTAAGAGATGTAAAAGCTTAAGGGTCAAACAATACCAATTGTATAGG
CTTCAAAAACCATCTAAGTTAGGGCATTCTNTAGTTTTAGCTAAGATACACCTGGAACAC
TGACAAGTCATCACTTACATAGAATAATGTGAAGTAAATTTTTGAAAAATAAATTTTAG
TGGAACAATCCTGAAGGATAACACCAGAAGAATAGCAGGTTACCAGTAAGGGGTCAGCCA
ATTTGTTCCAGTCACTTTTGAATCCATGTTCTATAATCTAAAAATTATTCTCTTTCCCTA
AGCTGAGAGCTTCCTATCATGTGAGTATCTATGNTATGAAG

Sequence 2207

[illegible]

Sequence 2208

GGCGAATTGNNGCTCNTTCGCGGTGGCGGCCGAGGTACTGAGAGAGGGTGGTGGACATACT

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GGTGGTGTATGGTATGTTCCCTTTTCTTAAATTTGAGGGTAGATCGNGTCAC
TGGGCGTAAGANACTGAGAAATCAGGTAGCTTCACTGGCTGGTAGGGGACTTTTGCTTT

TABLE 1
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GAAACGTCACAGGCTGTCTTCCTTTGGATGTAATGGGACGTCCTGATGACCCA

Sequence 2214

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTTTTTTTTNATTAGGGTTGAAAAGGTAAGTCCTATATTANATACATAGGG
GCTGGTAGTCTTATCCTCTNTATAAATACNCACTTTTTGNCAGTCCCCCTTCCCTGCCAT
GCAGAGTCCCATGGCTGAATCTCCCTATGTCTCCAAGNGNGCGTCACTTGCTGTCTNT
GGGCTGGGTCCCATGNGCTGNGCCACAGTCTT

Sequence 2215

CCGGGCAGGTACAATACACTAGAAACCAACATAATGTATTTNTTTAAACCTGTGTGAAA
AAATAAATGTTCCACCAGTAGGGATAGGGGAAAAGTAACCNAAAGAGAGANNNGGAGAAA
GGGAATGCTGGTTTATCTTTGTANGATTGTAATCGAATGNGAGAAATTTTGCAGTATT
TTAGCCACTTATTAAGGGAATTTTTTTTTTTGTAAGANTGGAAGACCTGANACNTCTGTT
CAAAATGGCTTTTCANTGGAACCTTGNGTNTTGGAGACCGTTAGNGAAAAGGCANACA
AAAACCGTGGGTAAACCTGGTGGACCTAAAGGGGCNCTGNGTGCCAAGGGNACCTTGGGG
NAAATTGGTCCATTNGATTANTAGGAATGGGTGGGGGGTTTTTTTCCCCCCTTTTTNA
GNAAANTGGTNTTNGGATTATTTTAAAGNTGGANTTTTAAAAAACACCNTTTTTTTTTA
AACTCCCCGAAA

Sequence 2216

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTATACATTAAATATTTATTAA
TGTTTTGGGAATGTTGTGTATCAGTAATTATACCTAGTAAAAAGAAAGATCCACATCCAA
ATTTTCCAGAAAACCGGGTGGCCAGGTNNGGGNGGAAGAAGAGCATTTTAAAAACCAAAA
CCAAAACAAGGGAAAAGCTAAAAAGGAGTTTNTTCCAAATANTCCTGAATTCATTAGGAG
GGTTGGAATTNACATTTTTTCAGGNCTNTATTCCCCCAAAGTTGAAATTTTTTAAGGGG
ACCTTGANAAAGNCTTTATTACCCCATNTGAAAAACAATGCCTGCCAATGGATTACC
CTNTTTTTCACGGTCTTCCAGGGTCCCAANTNACCGNTTGCCTGGTNAATCCCTTT
TGGGCCCTTTTTTTTTTT

Sequence 2217

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGAGCTGTGTGCATGCT
GAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGAT
GTATGCCAAGCGTGCTTTGTTCACTGGTACGGGAAGGATTCTGCCAGGGTGATTCTGG
GGGTCGCTGGTATGTGGAGACCACCTCCGAGGCTTGTGTATGGGGTAACATCCCCTG
TGGATCAAAGGAGAAGCCAGGAGTCTACACCAACGTCTGCAGATACACGAACCTGGATCCA
AAAAACCATTCAGGCCAAGTGACCCTGACATGTGACATCTACCTCCCGACCTACCACCCC
ACTGGCTGGTTCCAGGAACGTCTCTACCTAGACCTTGCTCCCTCCTCTCCTGCCAG
CTCTGACCCTGATGCTTAATAAACGCAGCNACGTGGAGGGTCTGATTCTCCCTTGGGT

Sequence 2218

CCGCGGTGGCGGCCGCCGGGCAAGGTACTTTTTTTTTTTTTTTTTTTGGGATGGAGT
CTTGCTCTGTTGCCAGGCTGGAGTGCAGGGGCGCAATCTTGGCTCACTGCAACCTCTTC
CTTCCAGGTTACGCCATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGACTACAGGTGCC
AGCCACCACGCCTGGCTAATTTTTGTATTTTGTAGAGACGGGATTTCACTGTGTTAG
CCAGGATGGTCTCAAACTCCAGACCTCNTGATCCGNCCACCTTGGCCTCCAAAAGNGCTG
GGGATTACANGGCATGAGCCANTGGGCCCCGGCCAAAAAANAANTTTTTTAAAAANGGC
NCCNNGCCCTTTTAAAAATTGGGGNGNCCCCNNGGGGGNGGGGAAAATNAAAAAAA
TTNTNNCCCCCCCC

Sequence 2219

GGCGGCCGAGGTGGGCCACTGGGACTGAGATACGGCCCAGACTCCTACGGGAGGCACGC
ATGTAAGGAATTTTCCACAATGAGCGAAAGCTTGATGGAGCGACACAGCGTGAGGATGA
AGTTCTTCGGAATGTAACTGCTGTTATAAGGGAAAAAAAAAAAAAAAAAAAAAAAAAN
GTACCTGCCCG

Sequence 2220

CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTT

TABLE 1
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TTNTNNTTTNTNTTTTTTTTTTTTTCCCGGCCATATTCATTNTTNNANAACCTGAATTG
CNCTGCCATCCACAAAGGCTNGCNCGGTTTTATCCACATTAAAATCAAACGTGNGGAGCN
CCAGGACTATTTCAATTATTGCTTTTGTNGGGAACAACTGATCTAACTGCATAAATCTTTT
TCCTTGACATTACATGAGTNTTGGNGTTTCAACCCTTTTTGCTTTTAAGNGGAANAGGC
NAATTTTCNGGAAANANGGGGGANCCTTTTNCCTTTTTACCCCAAAANTCCNAANGGNA
AAANCCTTNTTTTTTTTTTAAANTTTTTTCCCCNNNTNCCCCAAAAAANNNGNTTTTTT
TTTTTTTTTTTTNTTGTGNGGGGGGNGGGGNGNGGGNANAAAAANANNNCNNNTTTTTTN
NNNNNTNTTTTTTTTTTANAAAAAANNNNNNNNNNNNNNNNNNNNNNNNNNNNNNTT
TTNNNNNNANAAATNNATNNNNNTTTTTTTTTTTTTTTTTT

Sequence 2221

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTA CTCTTTGT
TTTGGCACACTTTTCTGACAAACAGCCAGTGTCTCAACACATAAATACTAGTCCACGT
TAACAACAATAGCATATGAGACCGCTCTCCGTAAGATGCCAGATTGGATGCAAAATGGAC
TGGAAATACCTTGGAGGGTTTCAAAAAATAAGACAAAGGGCAAAGGAACCTTTGCCAAAG
GAGATGGAGAGCAATTCTTTAAAGTTAGTGGGAGGGAGGAAGCAAAGAGCTCATAAATAC
AAGCCTNTTAAATGGGACGCATTTGCCTCGCGCCTACTGGGGTGTCTGCAGCTCAGCTT
GGTGCCCCACACAGGACACCG

Sequence 2222

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGAAGTCTCTACTGAGGAAAGC
TATGAGGATACTCTGTTTCGTAAGCTCCCGGTGAATTTTGTTCACAGACTCGGAAGAAAG
GTTGGATAAGAGTTCACTGGAGATTGACAAGTACCTGGAGGAGCCCCTCACCCAAGTGCG
CATCTTAACGGCATTGGTGGAAAGCTGGGGTCAGAAAAGAGAAATGACCATTGGAGGGGC
GGGGCCTCCTAGAAGAACCTTCTTAGACAATGGGGGGAGGATGGGACTTTGTTTTTCCA
AGAATAAACTTCAACTCCTGT

Sequence 2223

CGAGGTA CTCTCCACCACAGTGTGAAAGGGAGAGCAAAGTCTTATGGATAAACCCCTCCT
TTCTTTTGGGGACACATGGCTCTCACTTGAGAAGCTCACCTGTGCTGAATGTCCACATGG
TCACTAAACATGTTATCCTTAAACCCCGCATGCCTGAGTTGAAAGGGCTCTCTCTTATTA
GGTTTTCTAGGGAACATGAGGCAGCAAATCTATTGCTAAGACTTTACCAGGCTCAAATCA
TCTGAGGCTGATAGATATTTGACTTGGTAAGACTTAAGTAAGGCTCTGGCTCCCAGGGGC
ATAAGCAACAGTTTTCTTGAATGTGCCATCTGAGAAGGGAGACCCAGGTTATGAAGTTTTT
CTTTGAACACATTGGTCTTTTCTCAAAGTTCTGCTTGTCTAGACTGTTAGCTCTTTGAG
GACAGGGACTATGTCTTATCAATCACTATTATTTTCTGTTACCTAGCATGGGACAAGTA
CCACCTGTCTGGGGATCACTCTCTAGGATCACCCCTCCATCCACAATTTATCCACAAGCC
AAGAACAAGCCCCTCATGTTCTCCAGCAGTGCTCGCTTTTCTAC

Sequence 2224

TCACTNTAGGGCGAATTGGAGCTCCCCGNGGTGGCGGCCGCCCGGGCAGGNACTTTNTT
TTTTTTTTTTTTTNCITTTTTTTTTTTTTTTTTTTTTTGGCCTTTTTTAATATCTTA
TTTGACAAAATAAAAGTCAGCAACCTATCTCGATTTCCAATTTTTTGTGGTGTGAAAT
TCCAATTGANACCTAAAGCATAGCTCTGGCCTTGGAGAGATTTCCAGGAGAGTCANAGCC
CANAAGGGAGCAGGATCCAGGAGGCCCTCATNTCCAGCACTCCAGCTGAGCCAGCCGGG
TTATGGAACATCACTGAGCAATTAATATTATCAACAGACAAAAAAGTTTATTGAATA
CAAACCTCAAAGGCATCAACAGTCTGGGCCCAAGAGATCCATGGCAGGA

Sequence 2225

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGGGCTCTTTCAGGTCCCCCT
TCCTCTGCAGACTCAGCCTCCAGGCTGTTTAGCTCTCCAGATAGCTGCCCTGCCACGC
AGGCCAGGAGTCTTCACTCAGGCACCGAGGCTGGTCCAGGAGGAGCTGTGGCACAGTC
GTGGTTCAAGTGTCCACATGCACCTGTTAGTCCCTGAGAGGTGGTGGGAATGGCTGCTTC
ATTCTCGAGGATGCCCGGGCCCCACCTGGGCTTGTCTTTCTGTTTAGAGGGAAGTGTA
CATATCTGCCATGAGGAACATAAATTCATGTAAAGCCATTTTCTTTAAACAAAAACAAA
CTTTCTAAGTACAATTTGTTACAAATAACGCAGACTTCAAAAAACAAAAAATNACAACC

TABLE 1
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AAACAAACCAAAATTTAAATGATCAGAATTGGCAAGCACAAAGAAAACGCCCTNTCCTGA
CTTNTATTGTGGGCAGTTCTGAACGCCCCCAGAAAATTTGTGCCAAAGAGTTTTAGAAAA
NTAAATATTCCAATAAAAGTAAACACTATACNCCACCAAAACAGGC

Sequence 2226

GGCGAATTNGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTT
TTTTTTTCTAACTTTATATATAATACTTTATTTTATACAATTCAGTATATCATGTTAAC
ATATTTCACTTTTAATTTTATGATATGTGTGACATATTTTAAATTTATGGATTCAATTA
TACTATCATAATTTTTTAAAGTTTGTATCTTTCATTAATAAGGAGGTTCTTATTAATG
GATTTTTTTTCTGTAGCTTNTGAGAACACATTTTATAGATNCCCGGCTTNTAGTTATACC
TGAAGCTCCACAGTGANACATGTTTTGGCCAACCTTGTTTTATCGGNGTATGAAATTTG
NGCTAATAGGAGGGATCCAATTGTCATTACATTAGAAAATAAATGGGAAA

Sequence 2227

CCGGGCAGGTACGCGGGGCCCTTCTAGAGGCAGGCAGAGGGAAGAGAAAGGGTCTGTTGT
TTTTCTCTCCTGTTTCTCGCTCCCTCTCTGCTGATCACAAAGCTGCTGACCGGGTCAGAA
AGTCCTGATGAAATCCACCAGCGCTGGGCAGGCCCTCCTCCTCCAGGGAGCTTGTCCT
TGCCTAATTTTTCTTCGTCTGATGAGAACAAAAAGAGAGAGAGAAGAAAAGAAAAACC
ACAAACTTCCTTTGAAAACAGCTTGTAGTCAGGGCCCGGAGCGCATGCCATAGACTCGG
CGACTCAGGAATCCTGAAGACTCTCTGAGCGACCTGGAGCACCTTGGGCTGTGTCCCTGC
CTGCCTTCACCTCCTCCAGTGCCCCCAGTACTAAGGAATCTTTCTGTTTTGGGGTT

Sequence 2228

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGACACAAGACATCATCTTGAAGGAAGG
ATGGCTTTGGCCAGACCAAGACCAAGACTTGGAGACCTGATTGAGATTTCTCGCTTTGGC
TATGCACACTGGGCCATCTACGTGGGAGATGGCTATGTGGTCCATCTGGCTCCGGCAAAGT
GAAATTGCTGGAGCTGGTGCGGCCAGTGTCTGTCTGCCCTGACCAACAAAGCCATAGTG
AAGAAGGAACTGCTGTCTGTGGTGGCTGGGGGAGACAACACTACAGGGTCAATAACAAGCAC
GATGACAGATACACACCACTGCCTTCCAACAAATCGTCAAGCGGGCAGAGGAGTTGGTG
GGGCAGGGAGTTGCCTTATTC

Sequence 2229

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCCAGGTACTANAAGATATT
GATCCTAGTCAATTAGGCATTGTAGACTGTNATGACCACTTAATAAAAAATTNTGGACCT
GANGCTCACGAGCATCCAG

Sequence 2230

NTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGNGGTACCTGCAGNNCTNNTACACCT
ACCTCTCTNTGGGCTTNTATTTGACCGNGATGATGTGGCTCTGGAAGGCGTGAGCCACT
TTTTCCGCGAATTGNNCGAGGAGAAGCCGCAGAGGGCTACGAGCAGTNTCCTGAAGATGC
AAAACAGCAGTGGC

Sequence 2231

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGTTTCAGAGTTTC
ATAAGACACAGTCTCAACAGGAGTTTTTTTAAATAATGCTCTATCTCTAGTTCAGAAAC
TGAATTCGAAGAAGCTACACTGAGGATAATTCAGCTCTGATATTGTGATTACTGTGATGT
TCTTTCATTACATACAGTAAGTATCTGCCAATACGTAACCTACCGAGATCTATTGCTTCCT
ACATAATTAGACAAGCTCCTTACACATATGGGCCCATGCCCGGCACATAGCAGGCACCTTA
ACAAGGGGTTGCTTAACTACNGGAAGGAATAATATAATTNGCCTTTCNNTTTTTAACTGN
TTTACCCTTTTTCTATACNTTGNATATTTTTGGAACNACATGCTTGCAAAACTAAAAA
TCTAACATGCATTACTAATTTATAAAAGATCCTTCAGTATTTTTCAAAAAGGGAAAAAA
TNATTAACCAATCCCCCAAT

Sequence 2232

TACTTAGGGCGAATTGGAGCTCACCGCGGTGGCGGCCGCAGAGCTTAAGAGACCTTCAG
CTTCTCGGTGTAGGTCACCAAGTCATGTCACGCTCACAACCTTTTCGCCTCCCTCTAGGTC
AGGCACCGCATCCAAGTTAAGCAACCGACGCCGGCTCCTTGGTGTCCCAACAAGGTCTAG
TAGAAAAGCAACTTTATAATTGTTTTACAGATTTGATTAAGAGCCAACCTGAGTAGTGGG

TABLE 1

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CCTTGTGCTAGGGCTCCGAGGGCCCAAGGACCCCATGGAACCAGATTTAGTCGCTGACCT
CTAGGAGCTCACAGGTGAGTGACTCCCCCGCGTACCTCGGCCGCTCTAGAACTAGGTGG
GATCCCCCGGGGCTGCAGGAATTCCGATATCAAGCTTATCGAATACCCGTCGACCTTCA
GGGGGGGGCCCCGGTACCCAAGCTTTT

Sequence 2233

CCGGGCAGGTACCGNTGTGTCCGGGTGGGTGGTCAGAATGCCGNGCTCCAGGTGTTTACA
GCTGCTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCC
TGTGCCAACTGNGTTTCCCAAGCTATGTGAGTTCANATAACCTCANAGTGAGCTCGCTG
GAGGGGCAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTG
ACT

Sequence 2234

ATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATTGGCACGTCA
CGATGTCTTGAGTTTCATTCACTAGGTGGCAGCCTGCATCGTTCCACTGCAAATGACTGA
AATCCCAAAACACACAATGAGGCTGGCTCAGGTTTGACTCTATCTTGAAAAAATAGGA
AACTTCATTTATGGAATAGTTTGAATAACCGTGGATATCACAGGTCCATTGACCTGAG
CATTTCCATTTTGGAAACGGGTAG

Sequence 2235

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGTCATCACACGTGACAGGATGTCA
ATGACAATCCTCCAGAGTTTACTGCCATGACGTTTTATGGTGAAGTTCCTGAGAACAGGG
TAGACATCATAGTAGCTAATCTAACTGCGACCGATAAGGATCAACCCCATACACCAGCCT
GGAACGCAGTGTACCT

Sequence 2236

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAATATGAACCT
GTGCTTTGCAGCAGGCCAACTTGTAAGCTGTTCTCAACCCACTTTGTCAGGTTGATTAT
CGAGCAAACTTTGGCCTGTAATTTCTGTTTTCAAAGAAATCAGTTTCTCCAGCTTA
TGGAGGCATATCTGAGGTGAATCAACCTGCCGAATTGATGCCCCAGTTTTCTACAATTGA
GTACGCGGNGACAGCGGNTTCCTTGATCCTTGCCACCCGCG

Sequence 2237

GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCGGGTACNCNNGGGCCCTGTGCTG
TCTGCACCGAGGAGAGCGGCCTGNCGGAAGNNGGCCACCATATCTGGAACTACAGTCTA
TGNTTNGAAGCGCANAAAGGAATAAACANTTAANGACTCCCCNNGGACCTGNAGGATGG
NCTTTTCCATGGGGGCCGAGCNGCAGCTTACAATGNAAATNACANACTGGNGCTNTTG
GAGAAACTATANTTGGCATAATTCCCATTAACCACNATGACTTCAAAATTTTAA

Sequence 2238

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCCTGA
AATGGCTTCTGCAGAGATGGACCTATGCCGGGGACAGCACACCTGGACTCAAAAGGCAGG
GATTGGATAGGAAGAGGAATAAAATATAAAATCAGAGAACTGCTGAAATTCTGTGACCC
CTTTTAGTTAAAAAANGAAATAAAAGTACCT

Sequence 2239

GGTACATTTTAAAGAGGTTGTTTTTGGCCGGGCGCAGTGGCTCATGCCTGTAATCCCA
GCACTTTGGGAGGCCGAGGTGGGCGGATCACGAGGTCTGGAGTTTGAGACCATCCTGGCT
AACACAGTGAAATCCCGTCTCTACTAAAAATACAAAAAATTAGCCAGGCGTGGTGGCTGG
CACCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCTGGAAGGA
AGAGGTTGCAGTGAGCCAAGATTGCGCCCTGCACTCCAGCCTGGGCAACAGAGCAAGAC
TCCATCCCAAAAAAANTTNAAAAAANNNGGTACCTTGCCCGGGGCGGCCGCTC
TANAACTAAGGNGGGGATCCCCCGGGCTTGNAAGGGAATTCNATATCAAAGCTTTA
TTCGAATNCCGTTTCGACCTTCGAGGGGGGGGGG

Sequence 2240

CGGTGGCGGCCGCCCGGGCAGGTACNTGGGGAAGGCGCNCCTGCGTCAGCTTGACAGCA
GAAGCAGGAGGAGAGCTGGCGGGAAGACATGCACCCCTTGAAGACCCAGAGAGAGGCCGT
CTGTCTACCGCGTAGCAGTTACATCAGACTGAGACACTTCTGTTTACAGGAGACTATAA

AATTCCTGCCCGTGCTCATTTGGGGCTGACGCCATTTTAGACCTCAGCCCATCTGCACC
CAGGCGCTCACTGAAACAGTGTGTTGCTCCACACCGCCTTGTTTTGCTTGNTGGCGCGCT
CTCAGGGTTCGACCAATCCAAGAGCCTTGAGAAAAGCATTAAACGTGCTTTTNTCTTTGG
CAAGAGTTTTCTTTGCTCTGATCTTGAGACCATCCCTCTGCCTAGGGGGGAAAACATAN
GGGAATACAGA

Sequence 2241

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGCCGCCCGGGCAGGTACACCATGTTAAGA
GATAGCAATGCAACCGCAGCCAAGATGTCTTTAGATGTAATGATTGAACTCTACAGAAGG
AACATCTGGAATGATGCAAAAAGTGTCAATGTTATCACAAGTGCATGTTTCTCTAAGGTC
ACCAAGATATTAGTTGCCGCTTTGACATTCCTTTCTTGGGAAAGATGAAGATGAAAAACAG
GACAGTGAAGTCCGAATCTGAGGATGATGGACCAACAGCAAGAGACCTGCTAGTACCCCTCT
CTTCAGCACCCAGGCCAGTATTGAGATCGATTCTCTCTATGAAGGAATCGACTTCTATA
CCTCCATTACCCGTGCCCGATTGAAGAACTGAATGCTGACCTGTTTCCGTGGCACCCTG
GACCCAGTAGA

Sequence 2242

TAGGGCNAATTGGAGCTCCCGCGGTGGCGGCCGCCGGGCAGGTACAGTGGCGTGCGCC
TGCTTTCCCGCCAGTGCCCACTCAAAGTTTCTTACGGCATAGGCCGATGAGGAGCATGAT
CAGGAAGGCCGGGTGATTGTGGCTGAATTTGACTCGTTTGTGCTGGTAACAGCATATGTA
CCCTTGTCCTCTTCTTCAGTGACTTAAACAATTCCAGGATCAGAAGAGAAGCCAACGTG
ACATCCTCGATAAAACTGGGGATAAGCTGAAGTTCTGTCTGTTACCCGAAGTGGTTGAAA
AACAAATTCGAGATCCAGAAGTCCCTTGATGGGTTCAACATCAGGTGTTCAAAAAA

Sequence 2243

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGNCAGGTACCTTCACCTG
CTTTGGAGAAATCCTGAATGTGTCCCAGAAATGAGACGAGAAGTCTTCTCCTGATCAA
GGTCTTTTCTTGATTGAAGGGTTCGTGGTTTCACAGGCTTCAAGGAAAGAAGCCATGGAC
CTCAGTGGTGAGTGTTACAGNTCCATTAGAGAAACATGCAGACCCCCCGCGTACCTN

Sequence 2244

GCCGCCGGGCAGGTACTTTCCTTCCCTAGAAAAGCNGACTNGNCGCTAACGGTGAAGG
ACCANGGCAGGCGTCCCTGAGTGGTCTGACACCTTTGAAACGTGAGTGAATAATCAGAGA
GGTGTCCCTGNAATGATAAACACCAAGGAAAGGCTGCCTTCCAGTCTGNGACCAAGCGC
CAGAGTTTTGGGTCCACGGATAAAACGTGTCTCGTTTGTCTCTACCAGAAAATGAANGGA
ATTTGAAATTAAGAGAAGGGAGAGATTAAAAAAAAAAAAAGAAAAAAAAAAAGTACCTCG
GCCG

Sequence 2245

AGGTACGCTTCGACCCACGCGTCCGAGAAAAAGACTATTAATTATTTGTGCCTTTAAAGGT
TAATTATTTCAACCTTAAAAGAATCTTATAAGAACCCATTAATAAAAAAGAATGCAATA
TATTGCCCAAAAAAATACACAAATTATTGCTTTTCATATAGGGGAGGAAATAAATATGTT
TCATCTGAATTGCTGAAGTAAGTCATGAATGGAGTCAGGGTAAAAAAAAAAAAAAAAAAAA
AGTGGCGGCCACTGCGCCG

Sequence 2246

CCGGGCAGGCTCAAGCTTCGACCCACGCGTCCGCGAATACTGCATACTGTTTAAGGTAGTA
TATAAGTTTATGAGAGAAGTGAGAGAGCTTTCTTCTTGAAAAGTCGGTATTTGTTGAGAT
ACCATTTGCCTCACAGAGAGGTGTTCCCCACTCCCATCCCCATTGCCAGATAATAAATAT
TTTGAGAAAAGTGACCTAAACAGCTGAAATCTTAGGTGCATCTGTCTGCAGACCTCCTT
AAGCAGGCTGTATCTTACAATCCCTTACTGCACTGGGTAAGTGTTAACTTAGTTTTTGT
TGTTTGCTCTTTTGCTTTAAATATTCTCCAAATTACACGT

Sequence 2247

AGGTGTACAAGCTTCNACCCACGCGTCCGAAAGATTCTTGGNTGAGCATGGTGGCTCATG
TCTGTCATCTCANCAATTTGGGAGGCAAGGGCAGGAGGATAGTTTGAGCCCATGAGTTTG
AGACCAGCCTGGACAACATAGTGAGACCCCATCTCAGCAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAGTGCGGCCGGCCGCACTTTTTTTTTTTTTTTTTGTCTCAATANAAGTNTGG

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AGGTACATGTGCCANNTTGTATATCTTANCTATATNCNNNNCTACTTGCCCCTGATC

TABLE 1
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ATCTATGNGTAGACAATAATTAGTAAGGTCAAATTTTTACAAACTCCTCCTCAGCTGC
TAGCAAGTAATCAAGAGCTAGTCTATTTTGATAGATAGCATTTCTCATCAGAGTCTCTTG
CCAGGCAAGAACAGTCAAGGCTTGAGTGGTNTNNTTANTGNCTGCATTCTAAAACTGCTT
GGCNCCATATGACANNGCCGANCATGTAGATGGGGGTTTCGATATCCCCATGAGACATCTT
GTGCCCAAGTGGCAGGTCCATAGTATTGTAAGATTTTTTCAGGGGGCCATTTCATCGTCTT
TCCAATCACCTATGGCTATGCTTCATTTTTACAGGAAGCACAGACTGGGAAGCCCAGAA
GTTTACCTGTTTTATGGNCCCCTAAAAAAAANANGGTTTCNATGGGTGCCAAATTTAC
ACAGNTTACCTGGCCCACTTGATTNAGGGAANNTTTNANNCATTAAGNNCCGAANCCCN
NNGGGNATCAAAAAGNTTTGGCCCCTGGCCCGNNNGGGCCCGGCCCNCC

Sequence 2255

ACCTGCCCGGTGGCCGCTCGAGGCCGCCCGGGCAGGTTTTATTTAACATTCAAACCTTCA
TTAAGACATGTGCAATATGGCAATTTTACTGGGGATTAAACCCCTACCTAGGATTGCTTGC
TGGGGCTTAGCAACAGGGTCCAGTTTACACTTAGCACTAATTAAATACTTTATTGAATAA
ATACAATACCAACAAAATGCATTCAAATGCCGGACGCGTGGGTGCACTCAAGCTAGGTC
GGACGCGTACCT

Sequence 2256

ACTTTTTTTTTTTTTTTTTTTTTTAAAAATTCAAAAAATTAGTTTATTAGCTTAATATAA
TTAGGTCAATGGAATCCTGTTTTGATCTCAATACTTCCCATATTGCAATATATAAATGTG
ACAAATTCAGCTGTTTTGCGGCATAGATAAGTGTCTAAGCTGGGCAGTTAGTCTACCCGT
TTATAGTTCATGTTCTTCATGGCTTTCAGCATTGTCACCTTCTATGATGTGTTCAAAG
ACCAGAAAAGGCCACACTTGACCTGTCAGCTGGTCCTGAACAGCTGTAGGTTTTTTTTT
TTTTGAGACAGAGTCTCCCTNTGTTGNCCAGGCTGGAGTGCANTANCGCAACCTCGACTN
ACTGNAACCTCTGCCTCCAGGTTCAAGNGATTCTNCTCCTCANACTCCTGAGTAGCTGGG
ATTACAGGCCCATGCCACCATGCCCGGCTGATTTTTATTTTTAGTAGAGATGGGGNTT
CACCATGTTGGCCAGGCTGGTNTTAAAACCCCTCGGCCGNTTCTANAACTAGTGGGATC
CCCCCGGGCTTGCAAGGGAAATTTCCNATTNTTCAAAAGCNTTAATCGGATACCCCGTCC
AACNTNNGANGGGGGGGGGGGCCCCGGGANCCCCCAGCTTTTTGGTT

Sequence 2257

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGCAGGACCTCAGATTAATAATAT
TGCTGAGGTGACAGCGCCACAATTTTCATGACTTCTTCAGAAGTAGCACATTTTCGTGAC
TTCCGCTGTCTCTGAAAAACAAAGTTATTTGGAACATGTTTCATGCAAAAGTGATTCTGA
CCAAGTCTAAATCGAGCTTTTCTACTGACATGAACTGNTGGAAAAGTATCTTATTTTA
TAAGAAAGTGTTCCTNAGGGGGGGNNGTGTGNTTTCNGAACANCCCNCNNTATT
TTTTCCCCCGNNCCNTATAAAATATTGGGGTCCCCCCCCNNNCGGGGGGGNNGGGGNAT
TTAAAAATNTTTTTTNTTCCCCCCCCNCTGGGGGG

Sequence 2258

GGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTGTACAAAGCTTCGACCCACGCGTCC
GAGCAGAACTTGGCAGCAACAGAGGAAGGGCCCTGGAGCCGGCTGTCGTGGATGCCCTT
AATCAAGCCTGGCATTTGGTTGCTCACGAATGTCCCAACTACTTCCGCTAGGCCCATCAT
GGCTCAGGCTGCCAAGGCTTTTCTGTACCTNTTTGTTCTCTCACACTGACCAAGTCT
TACCTGCCCG

Sequence 2259

CGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTCTTCGACCCACGCGTCCGTA
GTAATAGGAATTAAGTACCCCTTTNGGATGGGGGAGAGCATCAGGCTGGGGTCAGGTAA
GTGTAATGGCCTTCTGAGCATGCTCTTCTAGGCTGACTCC

Sequence 2260

CCCCGCGGTGGCGGCCGCCCGGGCAGGTACAATTAGTTATCAATTCATGGGCTATGGCCA
CTGGTTTGCTGGATGGTCAGGGACTTGAAGGAACATGACTGGAAAATTGGTGACAAAAC
GGTCTGTGGAAGAGGTATATACACAGATCTTCTGAATGGGTGAAAAATGTGAGGATATT
TGTGTCTCATATGAATGCCCCAAAGAATGACTTCAGCAGAAGAGGATTTTAATAACCAA
GTAGATAGGATGACCTGTTTCAGCCCCCTTCTCCAACCATGCAGGTAAGTGCCCAATGAGC

[illegible]

TABLE 1

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TTTTATACTTTGGTTTAAACAGGGGAGAGGGGGAGTNTAGTTGAAACAATNTTACAGAAG
TAAAGTAGGCAAAAAGTTAAAAGGATAAACGGTTACAGGAAAGTAAACAGTTCCAGGNGC
AGAGGCTTTAAGTNTATCCTAAGGNGATGGACCCCGGGCTTTGGGC

Sequence 2270

AATTGGAGCTCCCCGCGGTGGCGGNCGAGGTCAAGCTTCGACCCACGCGTCCGGTTTGT
TTTTCTTACGGCAACTCAAAGCAAAGAGCTGGAGGAGCCAGNCATTATAATTGCTTACT
CTCATCGCTTAGCGCCCCAGGTGGGATGTGTTTCCAAACACATTTTGTNTTTATAAGG
AAATGTAGTTAGGATTAATTTTATTGTCCTAATTAGAACTCACATTTTGGTTAAATCCTC
AATTCATTAAAAAAAAAAAAAAAAAANGGN

Sequence 2271

CNCTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCTTGAGTC
GACCCACGCGTCCGGTGATATGTCACAATGCCGTGTAGCCAGAGCCTAGACAAAAGTTAC
AGCACCTGGGAGATCAGTGCAGAGATATGTCACAATGTCCCCAGTAGGCAGAGACCAGGC
AACAGTTGGATCACCTCGGGATCAGTGCAGAGACATGTCTCAATCCCCCTGTGGGCACAG
CCTAGACAAGAGTTAAATCACCTCGGTAAACAGTGCAGAGATATGTCAATATTCCTGT
AGGCCGAGCCTACACAAGTGTTACATCACTAAGGTGATCAACGCATAGATATGTCAAAAT
ATTGCCGTGAAAGCAGAGTCTAGACAAGAGTTACATCACCTGGGCGATCAGTGCAGAGGT
ATGTGACAAGGCCCTTTAAGCAGAGCCTAGACAATAGTTACATCACCTGAGTGATCAGT
GCAGAGGTCTGTCACAATGCCCTTTAGGCAAGAGCTTAAACACCTCGGC

Sequence 2272

AGGTACTTGACCCACAGCCATCTGGGATGAGCCGCTTTTCAGCCACCATGTCTTCAAAT
TCATCAGCATNGAACNNGGTGAAGCCCCACTTNTTTGAGATGNTGGATCTTCTGGCCGGC
CAAGGAACTTGAACCTGGCCCTGCNGCAGGGCCTCAATCACATTGCTCCTTTGTTCTT
GCAAGCTTTTGGGTTGCCGGGATTGGGGACATNGATAAACTTGGGCCAAATTGTGAAACC
CTGGGCCACAAGTGCCCTGGGGGNGCCTTTCCAAAAGGGCCACCCTCCGCCATGCNCTG
TTNTGGGAAGNCCTTGTTCAAGCCCCCAANCNACAGGGGAACCAACCAATTCNTTNGT
TTGGAATGGCCGGAATTGAACCGTGGNAAGGGGGGTTGGGGAAGCCCCGCCACCCCC
NGGNATAATGGGGAAAGCCAATCTTTTGCCAACAACTTTTTTTAACCAATGTTACCCTT
GCCCCGGGGCCGGGTCCGCTTCTAAGAAACCTAGGTGGGGGATCCCCCGGGGGCCTGGC
GAGGGGAAATTTTGAATTATTCNAAAGCTTTAATTCTGAATACCCGTCCGGACCCTANG
AGGGGG

Sequence 2273

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTAGCTTGAGTCGACCCACGC
GTCCGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAGGGNGGCCGGCCGCCGGCGGGTCCCNTCANANANAAGG
GGGNGGGNGCTAATCCAGTACCAACNTTC

Sequence 2274

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCATTCTACTGT
AGAGGAAAATATATGACAATTATCACTGTCACTGCCTGACATACAAAATGGAACAGAAC
AGTGGGGTAATGAAGGGAGGGGAGGGGAAAGGGAAGAGCAGGAGAGAGAGGAGTTGGAGGA
GAGGGGAAACAAAGGGAAAAGGGTCTATTAAACAGAGGCCTAGAGAAGCTAAATTTGGA
AATGGCAAATCTGAGAAGAGCCTGAATAAAAAGTGGGGTGAGGCCATGCACAGTGGCTC
ACGCCTATAATCTCAGCACTTTGGGAGGCCGAGGCAGGTGGATCACCTGAGATCAGGAGT
TCGAGACCAGCCTGGCCAACATGGCAAAACACCT

Sequence 2275

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCG
TCCGAAAATGGGAGACAATTTACATGGACTTTGGAAAATATTTTTTCTTTGCATTC
ATCTCTCAAACCTAGTTTTTATCTTTGACCAACCGAACATGACCAAAAACCAAAAGTGCA
TTCAACCTTACCAAAAAAAAAAAAAAAAAAAGACCTGCCCG

Sequence 2276

CCGCGGTGGCGGCCGCCCGGGCAGGTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGACTAG

TABLE 1

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AGGGATGAACCACCATGCCAGGTAATTTTTTAATTTTTAGTAAAGGTCGGGTCTCACTA
TCTTTCCTGCTCAGCTGGTCTGGAACCTCTGGGTTCAAGTGATCTTCCACCTCAGCCT
CCCAAAGTGCTGGGATTAAGAAGTAACTACCACACTCAGCCACACATAGGTAATTTAA
AATATTTCCATAGTCACAATTAACACATATAAATAGGTAAAATTAATAACATTTTAT
TTAACCCAATATATTAATATTTTCCACTTTAAAAAGAGACCTCGGCCGCTCTAGAACTA
GTGGGATCCCCCGGGCTGCAGGGAATTCGATATCAAAGCT

Sequence 2277

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTATTCGACCCACGCGTCCGTAG
TTTTTATCTTTGACCAACCGAACATGACCAAAAACCAAAAGTGCATTCAACCTTACCAA
AAAAAAAAAAAAAAAAAANGT

Sequence 2278

GNACCCAGTAATCACATAAAGGTNTGCAGGTCATGNTGTTTATTTAGCTTAAGTGT
TTTTTATTTGTTGAAGGGGTNGGTGTTATTTTCAGNCTTTTTCTTATTGGGTTGACCAGA
CTTGGTAAATCTGTAAGAAAGTTCATAAATTATTGGGGGGAAGGNATTTCTCTGAA
ATTGGGCTAAATTCCTTGAGCTGAAAAAAAAAANAACAAAAACAATAAATANGN
GGCCGGGCCCGCTTCTAAGAAAACTAGGNGGGGGATCCCCGGGGGCCTGCAGGGGAATT
CCGNATATCAAAGCCTTATCGGATTACCCGNCGNACCTCGGAAGGGGGGGGGGGGGCCCC
GGGGTACCCAAGCTTTTTGGTTTCCCTTTTAAAGTGAAGGGGGTTAAATTTGCCGCCGT
TGGGGCCGTAAATCAATGGGTCATAAGGCTGGTNTTCCCTGGTGGNNGAAAAATTTGGT
TAATCCCGCTTCAACAAATTTCCACCAACCAACCANTACCGAAGCCCGGGGAAGCCATAA
AAAGGTGGTNAAAAGCCCTGGG

Sequence 2279

NGGNGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAAAAAAAAAAAA
ACAAAAAAAACCACTTCACTAATTCATCTGACAATGCTGTTTATTCATGACGCCAT
TTTTTGTGTTGTTGTTGTTGTTTCTAATAATAAGAAGGAGACTTAGGGCTGTTG
GGCTGATATATGTTTGGGGTCCACCTCCCCGCCTCATCCGTACCTCGGCCGACCAGTG
CAAATATCTACCCAGTTAGAAGAGTAAATACCATCTTAGTGTTATTATCAAAATATTNTG
AACTCATGAACCTCCTCAGACTGTTGCTGGGGACTCCCAGATATCAATACTCTGAGAACC
ACTGATCTAATGTTTCTTTAGTCAGTTTCTATTGTTCTCTAGTATAACCAAGCATAAAA
GTAAT

Sequence 2280

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCTCAG
GGCACAAGTGATCATTTGGGATCCTAAGTTAAAAAGGAAATGCAAGAGTAGGATACTCC
AATCCAGAGTGCTTTGCAGGAGGCTAATCCACAAGAAGGGTAGCATCAGAGAAAGTGCC
ATTGGTCTTAGTGGTGGATCATCAGGTAGACAAGTGATAGTGTGTGTAACCCATCTGAAA
TTCATTTTACCGTCACCACTCTTACAAAGGACAGTTTATTCCCAAGGACAGTGCTGACGG
GGAGGGGGACAGGCAGGGAGTTAGGAGGGTTTTTCGAGGATTTCAAACAGGTGGAACCCAT
CCATCCCTATTCCCAAGGGCCACTTACAACCTCTAAGGGGTGGTTACAGGATTAACCTACCA
GTTCATTTTCAAATGCTGCTTTGAACCTCAGAGGGTTGATACTTTTAATTTGTAATTTT
TGTAACCTTTTTACAAAATAGT

Sequence 2281

CCGGGCAGGTTACAAGCTTCGACCCACGCGTCCGGTCATTATTACCCTCACTGTCAACCC
AACACAGGCATGCTCATAAGGAAAGGTTAAAAAAAAAAAAAAAAAAGTGCGGCCTCG
AGCGGCCGCCCGGGCAGGTACAAAAAACCTTACATAAATTAAGAATGAATACATTTAC
AGGCGTAAATGCAAACCGCTTCCAACCTCAAAGCAAGTAACAGCCCACGGTGTTCTGGCCA
AAGACATCAGCTAAGAAAGGAACTGGGTCTACGGCTTGGACTTTCCAACCTGACAGA
CCCGCAAGACAAAACAACTGGTCTTGCCAGCCTCTAGAGAAATCCAGAACACTCAGCC
CTGACACGTTAATAC

Sequence 2282

GCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTCAAGCTTCTACCCACAGCGTCCGTTT
ATGTTCAAGCAATAAAGGTTCTATCCGTAAAAAAAAAAAAAAAAAAGNGCGGCCGGCCG

TABLE 1
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CCGGGCAGGTACTATGACTAGACACATGATGCATGGCTAAAAAGCTCTTCTGGATAACTC
CTTAGNGAAGGNCTAACNNCCCCACCACCATCAACCTACAGCCCTGCCTTTTTTTTTTTT
TTAANAAGTCTGTCACCACAATNTTGTCTGGNGCTNGATTTCAAATAATACATTTNTAGA
ACCTGCCCCGGGCACACGCCNATAACGANTGGTTTTNNNTTATATCAATTAACGTTAAA

Sequence 2283

CCGCGGTGGCGGCCGAGGTACTCCAGCCTGGGCGACAGAGCAAGGCTCAGTCTCAAAAAA
AAAAAAAAAAAAAGGAGAGGAATAGTAAATTTATAGTGGAGAAATCTGCAGTCACTAAC
TTAACCAAATAACCATGATGTATCCCTTATTAAGGTAATCGAAAGGGCACAGCGTT
ACTTCTGTGGAATCTTGCCCAAAATGCATAATCTCAATCAAATCATAAGAAAACATCAA
AATTGAGAGGCATTCTACAAAACCAATAATTAACCAATATTCATCAAAAGTGTCAAGGTC
ATAAAAGACAAGATGTTTATAGAAATACATTAATTTTGGTTTCTACTTAAATTTTATTTT
TTAAATAATTGTTTATAGAGATGTGGCCTTGTTAGTTGGCCA

Sequence 2284

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGGGATTTTTTTTTTTGTTTTT
TTCTTTTTTTTTGGTTTGTTTAAATCAGTGCATAAATTTTTCTTTCTCATTTACGA
GATGGACAAACAGATGGACTCTACAGCTAAGTGGAAATATCAAAGGTAGAGGGTGATTCT
GTGAGACTGATAGGCCTGACTATTCTCAATTCTCCCCACTGCAGTGTTACGCGGACGCG
TGGGTGGAANACCTGCCCC

Sequence 2285

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTGCGCTCGTAACAGTG
TAACATGTATTATGGTAACTTCTAATCTTGTGGCCTTAGACAGTCTAGTCCAAAGGCATA
AAGAAAGTNTGCTTTAAAAAAAAAAAAAGGAATGGTTATCTTCAAAAAAAAAAAAAAAAAA
AAAAAAGT

Sequence 2286

TAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACGACTCATATAGGGATCTAGA
TCACGAGCGGNCGGCCGCCCCGGGCAGGTCTCCCATCTTGCGCAAGTTGGTCACGTGGTCA
CCCAATCTTTGATGGCTTTCACCTGCTCATTACAGTAATGTGTCTCAATGAAGTCACCG
GACGCGTGGGTGCAAGACCT

Sequence 2287

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAGAACATCTTGAT
TTACAAGGGACAAAATGATGCAAAATTATGCTGTCCAACCTACTGGTGAAGTGGATCAG
AATGGTCCAAGGACTGTTAAACAGAGGAAGTATTTACATTTTGAAAACCTTGCGGACGCGT
GGGTGCAAGCTTGACACCT

Sequence 2288

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGNCTGGTACATAAANAATTTN
TTNGTCTTTAAATNGATACNAATGTCTATCANCTTTAATCAAGTTGTAAGTTATATTGAA
GACANTTNGATACATAATAAAAAATTATGACAATGTCCTGGAAAAAAAAAAAAAAAAANAGT
GCGGCCGACCT

Sequence 2289

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACCATACTTGTCAATG
CGTAGACTTCTTATCAAAATTTACATTNATCTGTAGGAAAATGTAAAGTTGGTAAAAAT
TGTTTACACAAATCACACATTTTCCATCCTTGACAATTGCAGNGTTTTTTTTTAAATATT
GCTGTATTAAGACAATTTTAACTGAAGTAGGTTGTAGAGGCTANAAACCTGATTAATAGA
GCAGTATTAGACAATTCTAACTGAAGTAGGTTGCAGAGGCTAGAAGAAACCTGATTAATA
CGGACGCGTGACCT

Sequence 2290

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAAGCTTCGACCCACGCGTGCG
AGTCAGGGAAGGTTTGTATGTTACATTTATTCACCAGAACTATTTTAAATATATCAA
GGGGTTTACTATGCCAAACAAAATCTAGGGAAAAATACTGCTAAAAATGGATGCCTCAT
CAGAACATGCTGTTGAGTCCAATGTGCCATAAGACATTTTAGCATGTTAAATAGCACTTT
TAATAGCAAAAAAGGCACATCAACTGCGAAGTTATCCTTAGTTTGCAATGCTTTTTCT

TABLE 1
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AGATTAATGATTTTTCAATCATTAGGGTACCTGCCCCG

Sequence 2291

CGCTACCTGCCCCGGCGGCCGGCCGCACTTTTTTTTTTTTTTTTCAAGTTTTATGA
TTTATTAACTTGTGGAACAAAATCGGACGCGTGGGTCGGACGCGTGGGTCGAAGCTAC
CT

Sequence 2292

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCTACCTCCAAGCAGGATGATGGG
CTAGACATGGAGCATACATAAACGGGCAAGATTCAGTCCCTGACCGCAAGGCACTTACAG
TCTAGTTGGGAAGGGAGACACAAATGTACCT

Sequence 2293

CCGCGGTGGCGGCCGCCGGGCAGGTACCAGAGACTCCAGGAAAAATCAAAAATTTGTTT
TTGCAATTAGCCGAGCACGTAGCCCACTCTCTAAATGTCACTTCATATTATGTTTGTA
ACAATGTAATAAGAGATCAATGGCCATAAGAAGCCTGAGAATTAGTGCCTACAGACCCA
GTTCTGATGAATCTCAGCCCCAAAAGAATCACCTGATCATTCTAGGTTCTAAAAGTT
TCAATTATTGGACAATATTGCATAGCTAGAAAAAAGTGGCGCCTCGA
GCGGCCGCCGGCAGGTACTTTGAGCAGGATAATAACATAAATTTCAATTTAAAAAGTTG
TATTTATAGCCCCAGTAACCGGAAAGAAATTATAAGTAATTATGGAAGTATTATATTCTGA
CCATACCAAGAGTTAAAAACAAAGAGTTCCTACTAAAGAGGAATATTTTCAAGATGATCT
GGTCCATCATGTGCATAGTTAAAGAATGGTTGGTTTAATAAAGATTCTTTTGCAATAAA
GAAT

Sequence 2294

AGGTACAAGCTTCGACCCACGCGTCCGATGAACAACTGGCTGCTCTGTCCCAGGGTCCAA
TATCCAAGCCCAAGAGGAAAAGAGAGAAAAAAGTGGCGCCGG
CCGCCCGGGCAGGTACAGATAAATATAGGAACTACTTCAGATTATTGGACAAATAAGAA
TTTCAGTGTGTCACTACCTATAATTAAGTAGCAGCACACCACAACCACAGCAAGTAAACA
CTAATCTCCTCTACTGCCTTTTTGGGGTCTTTCCAGTCAAGGAGCTAATTTACAGGGA
TACCACTGGGTTTCAACCAATCTCTGAAAGTTCCTTTATTATGAGTTTTGAAATTTAACT
AGTGCATCACCTACAATCTGTGGCTAGTTTTTTCTTACTCTTCACTAATTAAGTTT
AATACAATATGTAATGGTTTCAAAATTTT

Sequence 2295

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGAAA
CTTTAATTTTTAGGAATAACATATTGACTTACTGAACTGAAGCATTCTGAGTTGAAAGGA
GCCCCAGAGGAAAGGAGTTCTGTGTTGCTCACATGTTAAAGCTTGCTCACCTTCAGAGC
AGAGGGAATACCTATCTTCAGATATCCGCCATTTTCATCTCTTCATTATAGTCAAACAG
TGTGACTTGAGAGTGTGCTCTGGTGTCTGTATTCTGGCTTATGAAGATTATTTGAAAA
GAACTCTTACTACATTGAAATGCAGACTTTTAAAAATTTAAATATTGGATTAGGCAGTCA
AAAAACCAACAAGCATAAAAGGTCAGTAAGTTGTAATCTTAAAGTAAAGGTGGAAAC
TCATTATAAATGGAAGAAAAGTTTTGATTTCTTTTTGTTTGATGGGCAGTATGCCATA
TTATATCAAAGTTGGTTTAAAAAATACTTCCATCACTATTTTTATTTAAATAAACAT
TT

Sequence 2296

CCGCGGTGGCGGCCGAGGTATACTTTGCACCTTGAAAATATAAAATAAAATAAATTTAAA
AATAAAGGTAATTTTGTTCTTCCATGTCAGCTGAAAATAAGTGAAGACTGGGTCAGTAAT
AACATTGCTTTGCTGAATTCAGAGAATTCTAATAAAATATTTTAGTTGGGAAGCTATCT
GTATTAATAAATGATCTAAGGCTGGTAACAGTGGCCATACTTATAATCCAGTGCTTT
GGGAGGCCAAGGCAGAAAAATCACTTGAGGCCAGGAGTTTGAGATCAGCCTGGGCAACAT
AGTAAGACCTTATCTTACCCGGACGCGTGGGTCGACTCAAGACCTGCCCGGGCGGCCGG
CCGCACTTTTTTTTTTTTTTTTTTAAAGCTGCTCCTTGAGGATAAGGGCTAACTCACAG
GCAGTGCACCAAGAGCCACTATAAAAGATCCTTAATGAGCAAAATATATCC

Sequence 2297

CCGCGGTGGCGGCCGCCGGGCAGGTCAAGTCGACCCACGCGTCCGCTTGTTTTGCTCTA

TABLE 1
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TCCCATAGGAGTTGGTATGTTGTGTTTCCAATATCATTTACTAAAAGAAATTTTCCTTTT
TATTTCTTCATTGACCAACTGGTCATTTGCATGTTCTTTAATTACTATGTGTTGTATAG
TTTTCAAATTTCTCTTATTAATTTCTAGGTTTTCTGTGGTCAGAGAAGATGCTTGATA
CTACTTTAATTTTTTGAATGTTTAACTTGTTTTGTGACCTAACATATGATCTACCT
TGAGAATTATCTATATGCTGAGGAAAATAATGTGTATTACACAGCCATTGGATGAAATAT
TCTGTAACATCTCTTAGGTACCT

Sequence 2298

GAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACGCTTTATTTATTTCTTTTAGGAAT
TGCAGGTTCTAACAAAGTAGGGGTGAGGGGGGTGTTACAAACCAGTCACTAGGCAGGAA
CATTAGACTCCAAAAGCAGAGAAATGCTTAATTTTTCTTCTACCTGTTTACCACATTCA
TGTAAGACTGTAGTAAAAAGATGGTGAATCAGGCTGAATCAATCTAAATAACAACTTAA
GGCTCCCAAATCACATGAACCTAGGACCCTAAATCCAATGTCAGACGTGTTTAAATGGT
GCACTGCTCTACATTTTTCTATTATGCAAAGAGCTAGAAAATAATGGTAGTGTCATTATG
ACATTCCATGAAAATGAANGAAAATCTTTCAGGAAAAATTAAGAAAATAAAAAATGTTTAC
TAAAGAAAGAATGGTCCGGCTAAGTGCTANAGTTTNTTTCNNTTTTTTTTTTA

Sequence 2299

AGGTACTATCAAGCTTTATTTTACCTGCAAAAATATTTTAGCTACACTTGAAAAAATA
AAGTTGAGAATATACTTACATTTCTAAGGCCAGCGGACGCGTGGTCGAAGCTCGACC
TGCCCGGGCG

Sequence 2300

AGGTACGATTTTCCCTTCGCTTGAATATTATCCCTGTATATTGCATGAATGAGAGATTTC
CCATATTTCCATCAGAGTAATAAATATACTTGCTTTAATTCTTAAGCATAAGTAAACATG
ATATAAAAATATATGCTGAATTACTTGTGAAGAATGCATTTAAAGCTATTTTAAATGTGT
TTTTATTTGTAAGACATTACTTATTAAGAAATTGGTTATTATGCTTACTGTTCTAATCTG
GNGGTAAAGGTATTTCTTAAGAAATTTGCAGGTACTACAGATTTTCAAACCTGAATGAGAGA
AAATTTGTATAACCCATCCTGCTGTTCCACCTGCCCCGGGCGGCCCGCTCTAGAACTA
GGTGGGATCCCCGGGCCTGCAGGGAATTCGATATCAAGCTTAATCGATACCCGTCGACC
CTCGANGGGGGGCCCGGGTACCCAGCTTTT

Sequence 2301

GGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAAGCTTCGACCCACGCGTCCGGTGGCGA
GTGCCTGTAATCCCAGCTACTGGGAGGCTGCGACAGAAGAATCACTTGAACCTGGGAGGC
AGAGGTTGCAGTTAGCCAAGATCATGCCACTGCACTCCAGCCTANGCAACAGAATGAGAC
TCCATCTCAAANNAGAAAAAAAAAAAAAAAAAAGTGCGGCCACCTGCCGGGCGGCC
GGCCGCACTTTTTTTTTTTTTTTTTTGGCATAAGGTTCAATTTATTGAGTGGAAGCTT
ACAAAAGGGCCACTGGCCCCTCC

Sequence 2302

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTAGGGTTGAGGGGAATGCTGGANATTGNAATGGGTNTGGANACATATNATATAAGT
AATGCTAGGGNGAGTGGTAGGAAGTTTTTTCATAGGAGNGTATGAGTTGGTCGTAGCGG
AATNGGGGGTATNCTGTTTGAANACCTGCCCCGGGCGGNCGGCCNCACTTTTTTTTTTTTT
TTTTACTTTGGCNGGGGNTTTTTCTTTCTTTTTTTTTTTCAGCTACNGGAATTTANCCN
ATTCANAGGAAATCTTCCCATAATTANGGAACCTTTNTTACANANTTACCAAGTNTGGG
CNNCCCNATAAGAAAAAGACTGAAATAACAACAACNACTTTAANAAT

Sequence 2303

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCNNTNTNTTTTTTTTTNTTNGCCAG
NTANAATCTNAGCTTTTTATTTGTAGGAAAAAATAAACAGATTNCCCTCCNNAACANGGC
GTNACAANAAANGAGGCAATNAAGGGAAAAANGCANATNCTAAACGGACNCNTGGGTTNA
ANCTTGACCT

Sequence 2304

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGT
CCGAGAAGAGTTTGCAAATGCAACAAAATATTTAATTACCGTTGTTAAACTGGTTTAG

TABLE 1
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CACAATTTATATTTTCCCTCTCTTGCCTTTCTTATTTGCAATAAAAGGTATTGAGCCATT
TTTTAAATGACATTTTTGATAAATTATGTTGTACCTGCCCC

Sequence 2305

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCCGCA
CTTTTTTTTTTTTTTTTTGNTTCTGGGTGAAGTTTATTCTGTTTTACATCTAGGT
TGTTGGGGAGAGTGATAGACAAAGTTCTGGATTCTGGGCATCGTCGGCGCATGCTTGTA
TCCTACTTGGGAGGTTGAGACAGGAGGATCACTTGAGGCTAGGAGTTGGAGGCTGCAGTG
TACCTGCCCC

Sequence 2306

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCGCCGCACTTTTTTTTT
TTTTTTTTTTTTTTCTTCTTCTCTTGCCTGGATTGAGTCCCAGAAATGTTAGGACTACC
TCAGTTTTGCTCCAAACCAAACTCAAACAACAGCAGCCACTGGAAATCAAGGAAACTTCA
CTAAGAATTTAACAGATCATCAAAACACCGCTCCTTCCCATTTTAGCCGGACGCGTGGG
TCGAAGCTTGACACCTGCCCC

Sequence 2307

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCATTAAATA
TTCTGAGAGGTGAATGTAAATATAAAAGGTATAGGTTTTTTTTTTTAAAGAAAACAAT
NAACTTTCAAAGAGAAAACCAAAAAAAAAAAAAAAAAAAAAAAAAAGTGCGGCCGCC
GCACTTNTTTTTTTTTTTTTTAAANANANATGAGGTTTGNTATGTTGCCAGGCT
G

Sequence 2308

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACC
CACGCGTCCGTTCTAAATGATCGACAACCTCTCAAGCAATAACTTGACTGTTGAATAGAAG
ATTAAGAAAAGTTGGTTAAAAAAAAAAAAAAAAAAAAAGT

Sequence 2309

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAAGCTCG
ACCCACGCGTCCGAAATAATAAAGCTAGAAGTAATTTTTCTTTTGTCTATTTTCCAA
ATTGACTCGATATTGATGGCTACTTTTGAAGTTTTATTTAAGTTTAAAGGGAATATT
ATTGATCACCTCTATGTGCTCAGTACCT

Sequence 2310

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGCTTCGACCCACGCGTCCGCA
AAGTTCACCAAAATTCGCTACAGCCTAAGACTAGCCTCACCAGTCCTTTTTCCCATTAATC
AAAACTTTGCAGAAGAGACAATGATTTTTACCATTCAATCAACCAGTTTGCACAGAGAGA
GGCTGAAGCCTGACTTGAAGAACTCTTGCTTTTGCCAGTGTGCCAGGTTTCTGGGT
TCCCCTTCTCTGAGTGGCTTTGATGACCCTGCTTGCTGTGCCATAGCTATGGGGGGGCCA
AGCCATGTTACCCAAAAAAAAAAAAACNNTNNNNNNNGGTGCGGNCNGNCCCTCGNGATCT
AAANCCCCATAGGGGGNGGGATTAACAATTNCCATTCCCNNGGGGAAATTTTTGGCNCC
TTTTNTTGGGGAANAAAATTTTTTTTTTGNAAATTAANGGTTAAAAANCCNCCCCTT
TTTGNAAAAATTTANTGGNTTTAACCCCC

Sequence 2311

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTAANGCTG
CTCCTTGAGGATAAGGGCTAACTCACAGGCAGNGCACCAGAGCCACTATGAAAAGATCC
TTAATGAGCAAAATATATNCCCTATTATTTTCTACAAGTTGCTTTTACTTGAGTAGGA
ACCCTTGATTG

Sequence 2312

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACCTGGTATGCCAGA
TGAGAATGACAGGAGCCATCCGCAAGCAGTTGGCGGCTTTCTTAGAAGGCTTCTATGAGA
TCATTCCAAAGCGCCTCATTTCATCTTCACTGAGCAGGAGTTAGAGCTGCTTATATCAG
GACTGCCCACTTACATCGATGATCTGAAATCCAACACTGAATACCACAAGTACCTGC
CCGGGCGGCCGCCGCACTTTTTTTTTTTTACCTGAAATGCTTATTCTAGCTTCA
CATTTGATTGTTGGCTAAGAAGAAAATTATTTATTAGACTTAATTTTCTCACGAGTTT

TABLE 1
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AAAGATTGCTTCAGATCTTAAACTTCTAATGAGGAAAGCTGAGA

Sequence 2313

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGCAAGCTTCGACCCACGCGTC
CGCAAAGTTCACCAAATTCGCTACAGCCTAAGACTAGCCTCACCAGTCCTTTTCCCATT
AATCAAAACTTTGCAGAAGAGACAATGATTTTACCATTCAATCAACCAGTTGCACAGA
GAGAGGCTGAAGCCTGACTTGTAAGAACTCTTGTCCTTTGCCAGTGTGCCAGGTTTCT
GGGTCCCCCTTCTGAGTGGCTTTGATGACCCTGCTTGCTGTGCCATAGCTATGGGGGG
GGCCAAAGCCATGTTACCCAAAAAAAAAAAAAAAAAAGTGCGGCCGCGCCGCCGGGCA
GGTGTCACTTTCAACTTGGTTATGCCTAAACAAAGTCTCCCTCATCTCCAAACAATTC
TCCCGACTTTCTTCTTTTTTGAGATGGAGTCTTGCTCTGTGCGCCACGCTGGAGTGCAG
TGGCATGATCTTGGCTCCCTGC

Sequence 2314

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTTTTTTNAAATGCTCAAAAGA
ACAATTTTTATGTAAGTTTGTGATAGAGCCTCAGGTAATTCTACAAAATTAAACCCA
TTTTCAATGCAAAATTCCTGAACATAAACAAATGCTTTTAAAAATATGGATGGNGTGGT
ACTCTTTTAGTAATACTTGGATTATCATCAAAGATTAACTTTATTTTTTNGTGTGTG
TGTGTTTTTTTTTNGNGNGTTTTTTTTTTTTTTTATTATACNCTAAGTTTTAG
GGTACCTGCC

Sequence 2315

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACC
CACGCGTCCGACTTTTGTCTTAGACCCAGTTAGGGTCACCTTACAGTGCAGGTGGAAAG
AAAGCAGGACTGCTGAGAGGAGCTCAGGA

Sequence 2316

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCACGCGT
CCGGATTAAAGTCTACGTGATCTGAGTTCAGACCGGAGTAATCCAGGNNGGTTTCTATC
TACTTCAAATTCCTCCCTGTACCTGCCCG

Sequence 2317

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGNCGAGGTGTACAANGCTTCGACCCACGCG
TCCGCCACACGTAAGTGAATGCTCCTTTAAATAAAGCGTTTGTGTTNGANGTTAAAAA
AAAAAAAAAAAAAAAAAAGT

Sequence 2318

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTNNTTTTTTTTTTTTT
ATTATCTAAATCAGNTTTATTTAAGAATTTCCAACANTGACAACTNTTATAAAGGGGCAT
CCAAGCACAGGACACANAAGTGCNACAAACAGCATTCTTACGGACGCGTGGGTGGAAGAC
CTCGGCCGCT

Sequence 2319

CCGCGGTGGCGGCCGAGGTACAGAATGGTAAAAATTCCAATCAGTCAAAAGAGGTCAATG
AATTAAGGCTTGCAACTTTTTCAAAAAAAAAAAAAAAAAAAGTGCGGCCGCGCCGCC
GGGCAGGTGAGCGGCAGCACTTTTTTTTTTTTTTTTTTTTATGNTTTTATTTTCA
ATTTTTATTTGGTTTTCTTACAAAGGTTGACATTTCCATAACAGGTGTAAGAGTGTG
AAAAAAAAATTCAAATTTTGGGGGAGCGGGGAAGGAGTTAATGAACTGTATTGCACA
ATGCTCTGATCAATCCTTCTTTTCCGGACGCGTGGGTGGAANACCTCGGCCGCTCTAGA
ACTAGTGGGATCCCC

Sequence 2320

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCTCTTGTCTAGT
ATACTCAAGGCAGCCTAGTAAATTATTATTTATCTATACAATACTGGAAAACTNGNAGA
CAAAAACATGACTTGAATTGCTAAAAAAAAAAAAAAAAAANGAGGGAGAATGAAACT
TCCGGACGCGTGGGTGGAAGCTTGACCT

Sequence 2321

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTNCATTTACATACAAGTGA
TCCAACAGGAAGTAAAGCNTTATGAAAAAGAACATGATGCAAATCATTTCCCNNGA

TABLE 1
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[illegible]

TABLE 1

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AAAAAGAAAATTTTTTTTTTTTTTAAGCCNTTTTAACCNCCAAAAAANNAAGTGT
TTTCCNNNCGNNNCTTTTNNAAAAANNNGGNACCCCCCNGGNGGGGGGANNTTTTTTAA
TTTTTTNNCCCCCCCCCTNGGGGGGGGGGCC

Sequence 2329

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCACGGTACTGAGGAAATATT
TTGTAAAGTGAGCTTTGGGTATAACTTAGCCCCATCATTATTTAGAGAATAGAGGAGGAA
GAAAGAGGAAGGATTTTAAAGGCAGACAATGACAGACCATTGAGGATAGGTAGGGTTTTA
AAGGGAGCGGACGCGTGGGTGGAAGACCT

Sequence 2330

CCCCGCGGTGGCGGCCGAGGTACCCTAAAATTTAAAGTATAATAATAATAATTTTTTTT
TAAAAAAGAGTGTTGTCTTTGTCTTGTATTTCTGCAGTTTGCATGTGATATTCTTAGG
TATAGATTTTTTTAGTATTTGTCTGTATATTGTTATTCGAGCTTCTGGGGATCTGTGT
TTTGGTGTCTATCATTAACTTTGGAATATTCTCAGTCATTACTGCTTCAAACATTCATTC
TGTTGCTTTTTCTCTTCTGGTATTATCATTACACATATATCACACCTTTTGTAAATCTCC
CACAGTTCATAGATATTCTGTTGTATTTATTTATTTTCTCTTTGCCTTTTAGTTTTAG
AGATTTCTATTGACATCACTTAAAGATGATTGATGAGTTGATGAGAATTGAGAGAATTGA
TGAGAATTGTTGATGAGAATTATTCATTGTGTTAGTGTTTTTCATTTCTGCCATTGNCT
TTTGATTTTTAGAGCTTCCATCTCTCTGCTTACA

Sequence 2331

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACCTTGACCGTGACCGTTTG
CTATATTCCTTTTTCTATGAAATAATGTGAATGATAATAAACAGCTTTGACTTGAAAAA
AAAAAAAAAAAAAAAAAAGT

Sequence 2332

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTATTTTATAGAAAAGAA
AACAGAGGCTCAGAGAGGTTAATTTTTCTGGATGTCCTAGATGTTAAATGTTACAACCT
TAATTGACCGATTCCAGAATCAGAGCTATTAACACAAAACCTATTTAATTCTCTCTAAA
TTCTTAAAGACCCAAGAAAAACAACTTTATTGAGATAATTAGGAATTTTTTTTAAAATA
TCGGACGCGTGGGTGGAAGCTTGACCT

Sequence 2333

AGGTCAAGCTTCGACCCACGCGTCCGTGGTGAACACAGAGAAGACAGTCTTGTATATATT
CCTCTGTATTCTGGGAGCTTTGACCTTGAGCTTTGTACCTGCCCG

Sequence 2334

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCAACAC
CTATGTTTATAAAAATTTGAAAACATTACATATTGTATTTAAAACTAATTAGNGAAGAGT
AAGAAAAAACTAGCCAACAGAATTGTAGGTGATGCATTAGTTAAATTTCAAACTCATA
ATAAAGGAACCTTCAGAGATTGGTTGAAACCCAGTGGTATCCCTGTAAATTAGCTCCTGT
GACTGGAAAAGACCCCAAAAGGCAGTAGAGGAGATTAGTGTTTACTTGCTGTGGTTGTG
GTGTGCTGCTACTTAATTATAGGTAGTGACACACTGAAATTCCTATTTGTCCAATAATCT
GAAGTAGTTTCCTATATTTATCTGTACCTGCCCGGGCGGCCGCGCACTTTTTTTTTT
TTTTTGCNNGGGNTTTTTCTTTCTTTTTTTTTCA

Sequence 2335

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTNNNTTTTTNTTTTTTTTTCTT
TAAACACCANTTAGTTTATTTAGGACAAGAATTTACCATNTAACANTCTTTNACATAA
ATTCTGNCTCCCCCACTTTTTTTTTTTGAANATAACCATTCCTTTTTTTTT

Sequence 2336

CNAANNNGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATCTNTATCAGAGCTTTT
GGGTGACCAGGCACACTGTCAATGAGCAGTAATACGGGGAAAGGAATCTTTGGGGTTTTT
TTTGGTTTGGTTTTTGTCTGTTATTTTTTGTGTTGTTTGTGTTTTGTTTTGTTTT
TTTAGCAGTAGGCCCTCAACAGTGGACTTAAATACTCAGTAAACCATGCTGTAAACAGAT
AAGCTGTCATCCAGACTTTGTTGTTCCATTTCTAGAGCACAGAGCAGATTTAGCAGAATT
CTTAAGGCTTTAGGATTTTCAAGATGGTAAATGAGCACTGGCTTCAACTTAGTCACCAGC

TABLE 1
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TGCATTGGCCCCCTAACAAAGACAGTCAGCCTGGCCTTTGAAGCGTTGCAGCC

Sequence 2337

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAACACTGCACATATTTAA
AACATATAATTTGATACATTTTGACTCACAAAACAATCACCACAATCAAGANGATGAGNN
TATAGATCACTCCCAAAAGTTTCCCTGTAGTCTTTTGCAGTCCTTTCTTCATGGCCTTCT
TCATCCATCCACCCCATCTCGGTAACCAATGATCTGCTTTCTGTCACCACAAATTAGTGA
GCACTGTCTAGAATTTTATGTAACTGAATAATAAAGATTTTACTCTTTCG

Sequence 2338

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTC
CGCACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGGAATCATCATTAACTTTAT
TTGNCACTNTTGATAGACATTGGTCCACTCCAACATAAAAAAGNAGAATTCACCCACTTCC
ACTTAATATTCTATAGAATGAAGTTGTACCTGCCCGGGCGGCCGCGCCCGGGCAGGT

Sequence 2339

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAGATTTTTTACACAA
AGAACTTAATGCTGTATTAATAAATTCAGTGTGTAGCTTCAATTGGGATAGTTCCAAAA
GTGAAGATTTTGTGAGGAATAAGTGCAAATTTTTTTTTTATTTTAAAAAATCTTTGAAA
CTCTTAAGTCTTTGTGCTGCAATAAAATTGTACCTGCCCGGGCGGCCGCGCCGCACTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTNGAAANGTTTGAAGTTAACTCATTTTATTNTAGGA
TTNGGATTTCAACATTTTAATTTNTTTGGAATATAAGTCANTTTTTGCAAGCTAAAAAAT
AGAATCAAA

Sequence 2340

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGGACTTGATTCATAACCAACCA
ACCCAGGCTGTCATGCTAAAAAAGGGCAGAATCTTTGCTGCTGAACTACTGCATAGGG
TGACTACCATTGCTCCTTTAGTTTGTGCTAGCAGAAGGTGGTCTTGCCATGTAAAT
AAAGCCTCTCAGGTAATCAAAATGTTTCTTTTTTACTTTTGCTGGTGTTTTTTCTTTT
CTTTTTTTTTCAGCTACAGGAATTTAGCCAATTCAGAGGAAATCTTCCCATAATTATGG
AACTTTCTTACAGATTTTACCAAGTCTGGTCAACCAATAAGAAAAAGACTGAAATAACA
ACAACAACCTTCAACAAATAAAAAAACAGTTAAGCTAAATAAACAGATG

Sequence 2341

AGGTACTTCTTACATAGTGATTGATGTCTCATGTCTCCCTAAAATGTATAAAACCAAGCT
GTGGCCGGACCACCTTGGGCACATGTCATCAGGACTTCTTGAGGCTATGCTACTGGGCAT
GTCTTCAACCTTGGCAAAATAAACTTTCTAAATTAATTGAGACCTGTCTCAAATTTTGGG
GGTTACAGGTGAGTGGGCTCAGGCATGTGCACTAGTATGACTAAAGGTCATAGACTATT
AGACTATTAGTCTATGACCTTCTCTAGAAACACTCGACTGGTAAGGGAAGAATGCCTCA
ACTGAGCATGTGCACAACTCCCATAAACACACTTGTGCTTGCAGGAGCCTNTCAAGTGCTG
GCAGGCCACTGCTCAGGTGGATTCTTCCCTCCTACCCGGAGGGAAGAATCAGGGGAGAAG
GGACACAAGCCCCTGAATGCATGCCAACACGTAAA

Sequence 2342

CCGCGGTGGCGGCCGAGGTACCTTCAGGTATTGCCTATTTAATGATCATATATACTTGCA
TAATATCATCCCTTCCCTTGATTTCTTTCAATCTAAAAATAAATATGAGAAAAACAAAA
AAAAAAAAAAAAAGT

Sequence 2343

ACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGGACTCAAGACC
AGATGGCCAACTAGAAGCAGCCAGGAAGAACATCTCTCATGGAGAGACCAGGAATTTGGG
AAGACTGGCACACTCTGAGCAGATCTTTTGAAGGAAAACATTGAGGGTGGATGAAGGGAG
GATGCAGAGCATGGGCTGAGGGGGCAGGAATCTCAGAAGCCTGCACAGGGCTTCCAAGCA
CTAGCATTCCTTACTAGCCCCCATTAACCTCTGGGGAAGGGGTGAGTTGAATAGGTGGNG
GAGTGGCCCGCTCTTACCATGAACTCCAGAATCCTAGCAGCAAGAGACCCCATGACCCC
TGTGGACACGAGCTGTCCGGACGCGTGGGTGGAAGACCTGCCCG

Sequence 2344

CCGCGGTGGCGGCCGCTNNCTGCCCGGGCGGCCGCGCCGCACTTTTTTTTTTCTTTTTGG

TABLE 1

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AAAAATNTNNNGACTCTGGGGATAAAANTNCNAATTAAATNNATNCNANNTTTTAAAGGC
TATTAANNANAANAATATTNGCTAAATTNNCCCTTNTGCATAACAACTGTGGNTNTACCA
TGTAANGTTTAAAAAATGTNTAACCNCAATTTTACGCTCCTCTGTNACANGACAAGGAC
TCCATTCANTGNCATTTAAGAACTNAATGGGTTGAN

Sequence 2345

AGGTCAAGCTTCGACCCACGCGTCCGATAAGCCAAAAAATGGGAGACAATTTACATGGA
CTTTGGAAAATATTTTTTCTTTGCATTCTCTCAAACCTTAGTTTTATCTTTGACC
AACCGAACATGACCAAAAACCAAAAGTGCATTCAACCTTACCAAAAAAAAAAAAAAAGTG
CGGCCGGCCGCACTTTGTTTCTACTGGGTTTAGACCGTCGTGAGACAGGTTAGTTTTACC
CTACTGATGATGTGTTGTTGCCATGGTAATCCTGCTCAGTACCT

Sequence 2346

CCGGGCAGGTACCTGCTCCATTTCTCCTGCAACATGTGGATACAGTAATATGATCATACC
CTCCCTTGTTCCCTCTAGGCCACTTTCCCTTTAAATATTAACACCATCATAATCATCT
TTGGAGAAAGACACCTGGATCTGTCCTGAACCTTGGCAAAAAATAATAATAATAAAAA
ATAAAAACTCTTCTCAATTGATTAATACCTGTCACAGATACATTTTGGTTTACAAATCA
ATGAACAATGGAGGAACTCTGTCCTTAATCTTGGTACCT

Sequence 2347

CCGCGGTGGCGGCCGAGGTCTCTTGTTGNTATTACACTTCTACGTAGATTATATAATAT
TGCTTGTTGACATAATTTGATCAATAATATATAATGTCAGTCACTACAGTGATCCAGAAT
CTTATTCTGGCTATGGAGGAAGCTTAATTATTAAGCAACATCTTCTAAAAAGCTTNTGA
ATTTCTGATTATAAGAAAAACAAACAAATGAAAAGAGTATCTNTAACTGAAATAACAC
TGAAGTTCGAGCTTGGGCCCTCTCTTGTTCAACATAATTAACNTTCAAGATGAAA
CCGGACGCGTGGGTGGAAGCTTGACCTGCCCGGGCGGCCGGCCGGCCGGGCAGGTGTTTN
TTCTGGGATATCTTTTTCTTCTGGGCAACCTCCTCTTCTGGTTTAGGAACAATCTGTTCC
TTTTCCGNAAGGATCATCTCAATGTGGCAGGGAGAGCTCAT

Sequence 2348

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCTTCGACCCACGC
GTCCGGGCAATTATCAAAAACACTTGAAAAAGATTTTTATTCTACTTTTAAACATACA
TCAAAATCTAAATAAACTAGGCACCTTCAGCTGGGCCTGGTGGCTCATGCCTGTAATC
CCAGCACTTTGGGAGGCTGAAGTGGGCAGATCACTGGATGTCAGAAGTTCGAGACCAGCC
TGGCCTACATGGCGAAACCCCTNTCTACTAAAAATACAAAATTAGCCGGGCTTGGTGG
TGGGGACCTGTAATCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCACTGAACTGGG
AGNGGAGGTTTCAGTTAGCTGAGATCACCACTGCACTNCAGCCTGGGCCACAGAGCA
GGACTCCATCTTAGAACAAAAACAAACAAACAAACCTCATGCACCTTCAAGAAAA
TCAACAAGTTTTATCTAATTAAGAAAGAATTTT

Sequence 2349

AACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGC
GTNCGCTTTAACACACACTAGGCTCTTTGTGATTATGATNCAGTGCTATTTGTAAGTGT
GTCCAGNGACCAAATGCACTCGACTCGATCAGCTGTTTCATCCATTTCTGTTTTTCC
TGTCAAACATTAATCCAGCAAATATATGAGGTATTTACCAATTTATTTTCTTAGTATTAC
AAAATAATTCAATAGCATAAAGTACCTGCCCCG

Sequence 2350

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTAAATCATAGAGC
TGCCCCAACATCTAGACAGTCTCTCCTACTGATTATAAATGAGTGAAAACATCAGTTAG
AAAAATCTAATTTAAGTTGTTAATACATGTTTCTTTGGTGAGCACCTGGATATATTTATC
ACAAATCTTTTATACAAATGTGCAAAATGCTTTCAACAAACCTAAGTGTCCTAATTACA
TGCCACTTTTAAGCATCACTTTAAGGTAAACAAAAATGAAAACCATAATTTTAAATTTAA
ATTTGCGGACGCGGGGGGTCGACTCAAGACCTCGGCCGCTCTAGAAGTAG

Sequence 2351

CCGCGGTGGCGGCCGCCGGGCAGGTGCTTCGACCCACGCGTCCGGATGGCTTGGGTCAT
CAGGACGTCCATTACATCCAAAGGAAGACAGCCTGTGACGTTTCAAAGCAAAAGTCCCC

TABLE 1
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TACCAGCCAGTGAAGCTACCTGATTTCTCAGTATCTTACGCCCAGNGACACGATCTACCC
TCAAAACTTAAAAAAAAAAAAAAAAAGGGAAACATAAACACATAACAGCAGACCTN

Sequence 2352

GGGCCGNGGNCACAACATTCCCCCTTCCCCAAACAGTAATATGGACACTGATTTAACANG
ACTTATAAAAAATAAGGCNCATTTATTTTGATNTGGTAATTTTAAAATAGAAACCCCTT
C

Sequence 2353

GCGNGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTNC
GAGCTTGAGTCGACCCACGCGTCCGTGAAAATGTTGTCTCCTTTCTAAATTCTCTGCCGA
TTTGGGAAAAAGCAAACCTTGACTTTACCCCGAGGAATTGGTGAAAAATTACTTTTACGCC
TTGCAGCTGTGGAACCTTGGTCTTACAGCCTCTGCTCTTCTGCCCAAACGGGCCATGCAGT
TTGGATCAAGAATTGCAAAAATGAAAAAATTAATGAAAAGGCATCTGATAAATGTGGAC
GGCTCCAAATCATGTCTTAGAAAATCTTTCTATTGAAAAGGAGACTAAATTGTAATGTG
ATTCACAATGTAACAATATAAAAAATAAGTTTTTATATAATTATTTAAAGGNAGATACTCT
GGTGCTTTACTATTGGATAAAATAAGTAAACCTGCCCGGGCGGGCCGGCCGACTTTTTTT
TTTTT

Sequence 2354

TCCCCGCGGTGGCGGCCGAGGTTTCAAAGACCNGCCTGGCCAACATGGTGAAACCCCATC
TCTACTAAAAATATAAAATCAGCCGGGCATGGTGGCATGTGCCTGTAATCCCAGCTACT
CAGGAGTCTGAGGAGGAGAATCACTTGAACCTGGAGGCAGAGGTTGCAGTGAGTCGAGGT
TGCGCTACTGCACTCCAGCCTGGACAACAGAGGGGAGACTCTGTCTCAAAAAAAAAAACCC
TACAGCTGTTCAAGGACCAGCTGCAGGGNCAAGNGGGGGCCTTTTTTGGTCTTTGAACAC
ATCATAGAAAGNGGNCAAATGCTGCAAAGCCATGAAGAACATGAACCTTTAACCGGGTAG
ACTAACTGCCCCACTTANACNCTTTTTTTTTGCCCCCAAAAACAAGNTTGATTTTGCCCT
TTTTTTTTTTTTNTCCATTGGGGGGAAGTTTTGGAAAAANAAAANGGGGCCNCCCCCCCCCT
TTTTTTTTTNNNNCNAAAAANCCTTTTTTTTTGTTTTTTTAAAAAAAAAAAA

Sequence 2355

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGGCCAGAGACTTC
AAGTCTATCTGAAAAGTCTCCAGAGGTCTAACCCAGATAAATAGCCAACAGGGTGTAGA
GTACATTTTACACCCCAAAGAGTGTGCCCCATGGTGATGAAAATAAAGTGAACATGTTGC
AAAATGAAAAAAAAAACCT

Sequence 2356

CCGCGGTGGCGGCCGCCCGGGCAGGTACCCAACACAACTATTCAATAAAGTAATCTGCT
TTAAAAATAAAACACACTGAAAGGCCGAGGCAGGTGGATCACCTGACATCATTAGTTCAA
GACCAGTGTGGCCAACTGGTGAAAATTAGTCTCGACTAAAAATACAAACATTAGCTGGG
CGTGGTGGCAGGCGCCTCTAATTCCAGCTACTCAGGAGGATGAGGCAGGAGAATCACTTG
AAGCAAGGAGGTGGAAGTTGCAGTGAGCTGAGATCGTGCCATTGCACTGCAGCCTGGGCA
ACAGAGTGAGACTCCGTCTCAAAAACACCACCACCAACAAAATAAACACAACAGAATTAT
TCTGCAAATACAGATATTGGAGTAGCTGAGTTNCATCTCAAATTTGACTATGCAGGTTGC
AGGGTGATCTTGGCCAACACTATTCTTTTNTGAAGTTCAACTTTTTT

Sequence 2357

CCGCGGTGGCGGCCCGAGCAAGTGGGCCTGTAGCCCGACTCTTAATCCAGGTTGGTGCTA
TTCAAAGAGATCATCTTTCACCCGAGGGATTCTGGGCATCTATTTTGCGGATCAGAAAG
TAGAGAAAGAAGGTAACCTTTGCTGAAAGCTAGTCTGGGGAGTTAGTAGCTGATACAGATC
AGCATTTCTAATATGAGATTTTATAATATTCTCTTGTCTCGATTCTGAGTCACTGG
TGCTGCTGTGGTGGCATTGTTTATGAACATGTACCTGCCCC

Sequence 2358

AGGTCATGTGCACATTGTGCAGGTTAGTTACATATGTATACATGTGCCATGCTGGTGCGC
TGCACCCACTAATCGTCATCTAGCATTAGGTATATCTCCAATGCTATCCCTCCCGCCT
CCTCCCACCCACAACAGTCCCCAGAGGTGATATCCCTTCCTGTGTCCATGTGTTCTC
ATTGTTCAATCCCACCTATGAGTGAGAATATGCAGTGTTTGGTTTTTTGTTCTTGCGAT

AGTTTACTGAGAATGATGATTTCCAATTCATCCACGTCCCTACAAAGGACATGAACTTG
AGAATTCCTTAATGCAGTGCTTTAATACAGTAAAAATTTTTAGTCTTTGTTTTCTACAAAA
TGCATTTGAAAAGTGCACTCTTGATCTTGNATTTTCTTTCCTTTCCTTTAGAATCATATT
AGCAGTTGGACGTATATATAAAATATTAAAGTGTAACCTGCCCGGGCCGCGCGGTCTAGAAC
TAGGTGGGATC

AGGTGTACAAGCTTCGACCCACGCGTCCGAGCAGAACTTGGCAGCAACAGAGGAAGGGCC
CCTGGAGCCGGCTGTCGTGGATGCCTTTAATCAAGCCTGGCATTGTTGCTCACGAATG
TCCAACTCTTCGCTAGGCCCATCATGCTCAGGCTGCCAAGGCTTTTCTGTCACTCT
TTTGTCTCTCACACTGACCAGTCTTACCTGCCCGGGCGGCCGGCCGCCCGGGCAGGTAC
CAAGTGAATTTAAATAATTGGTGTGGATTGGCCAGTAGCTAAGTGGGCTTTTAAAGAGTA
TTGAAGATTGAAAGGGTTTTTCTTTCTTTTTAAAAAGAAAAACAACTATTGATTGTA
GATAATGAAAAGCTAGGGTTTGCCCTCTTCATGTCTACTCTCCTTCCAAATAGTTATATC
CAAACTGTTTTTCTNTCCCCTACCTTGTC

CGAGGTACACAGCTATGCACTTTCGGTTTCTGACTTTTGCCACCCTGTCAGCCATGGGGA
GCCCCACTGTGGGACTGAAACCCTGAGCTGAATGCGGCCTCATGTCTCAGAGAAACACTGG
CAAGTTGGTCAGAGCCGCGTCTGCATCGAGGCGTAGCTGANCGGCAGGATGGGGGGCTGC
CTGCCCAGGGTCTCTCACCGTGGTGTAAGCAGAGCCATGGCTNGCCTAGGACCCCTATAGA
TACCATCACTCTTTCTCAGCTCGACTGGAGTTTGACCTTTGCGAGGGGCAAGTAACCTC
CTGCACCCCTGAACCAACCCCCCATCTCTGTTTCATTTCAGCAGATAATGATGGAGGGGGGGG

CTATAGGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTCAAGCTTCGACCCACGCG
TCCGCTATCATATTTCAAATCCTAATGGGAGACAAAACAAAAGTGATGGTCAGTATTTCT
TTGAAATTCTACAAGGAACTTCAGGCACATGGTGCTGATGAGTTATTAAGAGGGGTGTAC
GGGAGTTTTTGTAAATCCAGAATCAGGATACAATGTCTCTTTGCTATATGACCTTGAAAA
TCTTCCGGCATCCAAGGATTCCATTGTGCATCAAGCTGGCATGTTGAAGCGAAATTGTTT
TGCCTCTGTCTTTGAAAAATACTTCCAATTCCAAGAAGAGGGCAAGGAAGGAGAGAACAG
GGCAGTTATCCATTATAGGGATGATGAGACCATGTATGTTGAGTCTAAAAAGGACAGAGT
CACAGTAGTCTTCAGCACAGTGTTTAAGGATGACGACGATGTGGTCATTGGAAAGGTGTT
CATGCAGGAGTTCAAAGAAGGACGCGAGAGCCAGCCACACAGCCCCACANGTCCTNTTTAG
CCACACTGCCCGGGGGGCCGNTTGAGGGCCNCCCGCAGGGNNNGTNTNTAACANNGTA
ACATGTATTATGGNAACCTTTAATCTTGGGGNCTTANACAGGCTNNTNCCAANGGNTTA
ANNAAGNTTGNTTTTNAAAAAAAAAAAAAAAAAGGGATGGGTNTTTTTNAAAAAAAAAAAAA

CCGCGGTGGCGGCCGCCGGGCAGGTACAGCCTCACATACACAGATGCAGGTGAAGTCACC
AAAGCTGATCTCTCATTCTGTTCTGGGGACAGTTAGCAGCGTAGTGGTCCCAGTGCAGCAA
AAGTTTGAAATTCATTTCTTCAGGAAAATACCCAGCCAGTCTCTCAGTGGAAACCCTGG
TTATGTCGTGGGGCTCCCATAGCTGCTGGATTCCAGCCTCATAAGGGTGGAGCTCTCCC
GTGTCAGCTCGTAGCACAGAAGGTGAAGAGCCTGCTGTGGGGCCAGTGCTTCCAGATTAC
GTGGCCCCCTTTTGAAATTCAGGCCAGGACATGCTGGACTGGGTGCCCATCCACTTC
ATCACCCAGTCATTCAACAGGAAGGATTCCTGCCAGCTCCCAGGGGCTTTGGTTATAGAA
GTGAAGTGGACTAAATACGGATCCCTGCTGAATCCACAGGCCAAAATAGTCAATGTAAT
GCAAATCTAATTTTCATCTCTTTNCTGAGGCCCACTCAGGAAATGAAAGGGCGATTCTT
ATTTNCACTGGNGGTACNTTTGNNGATGTGTCTGCACCTGCAGANGCAGGCTTTAAAGCT
TCANCAGNCATTAATGGCANGCTGGCCNTTAACCTTT

TAGGGCGAATTGGAGCTCCCGCGGTGGCGGCCGCACTTTNTTTTTTTTTTTTTTTTTT

TABLE 1
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CGCACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAAAAAAGCCTCATTATCCTG
TAGTCCATTTTGGAAAGTAAAGCCCAAGAAAGCAAAGATGAAGGTTCTAAAGCTAGTTT

TABLE 1
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GA CTGACCTCAGAGTCCTCGGCCGCTCTAG

Sequence 2371

TTCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGCTGNGAGCACANAGATGA
ATAATANCAATAGGTTACANAAAAGATGAATTGATTGAGAGAAAAAGA

Sequence 2372

CGAGGTACCCAAAAGATATCACTGTGAAGGTTTGGATACACTGACTGAGGAAAAAAGAAG
GTCCTGAAAGCGTCTAGACAAAAAAGACTACTTGTAAAGTTGCAAGAATCAGAATGGCAT
TGGACTTCTCAGCTTTCCTCATTAGAAGTTAGATCTGAAGCAATCTTTAAACTCGTGAGG
AAAATTAAGTCTAATAAATAATTTTCTTCTAGCCAAACAATCAAATGTGAAGCTAGAAT
AAGCATTTTCAGGTAAAAAAGTGCAGGCCGCGCCCGGGCAGGTACA
TAATATACAGAGGTATAATCTGTAACATCAATAATGTAAAGTGGGGAAGGGCAAGGTGGA
AAAGGAGTAGAATGCTTGTATGTGACTAAAATTATGTTGGTATCAGTTTAAATATATTA
TTATAACTTTAGAATGCTATACCCATTCCACAGTAATCCCATAGTAACCAAAAAGAAA
ATATCTGTAGGATCACACAAAAGAAAATCAGAAGTAGATGCAAACTTGCTACTACAGGAA
AAAAAAA

Sequence 2373

CGAGGTGTACAAGCTTCGACCCACGCGTCCGAAGAAGGCTCTCCTCTGTTCCAGGAGAAG
GAAGGGACAGATGAGAAGTCACTTCAAGTTCCAGAATACTCAGGAGCTGAAC TTGTCAA
GGTTTAGATGTGGCAAAGCAGGCCAGGCATGGTGACTCATGCATGTAATCCCAGCATTTT
GGGAGGCCAAGGCAGGAGGATCACTTGAGCCCAGGAGTTTGAAAGCAGCCCGGGCAACAT
AGTGAAACCTCATCTCTAGAAAAAATACAAAAAATTAGCCAGGCGTGTTGGTGTACCTG
CCCG

Sequence 2374

CGCGGTGGCGGCCCGAGGTACATCTGCAAGCTTTAAAGCAGTAGGTTTCAGACTTCCTGGA
AGA ACTGACACTTGAAGCTGACTAGGGNCTACTTGANCNCATACTCACTTTGGCTAAGCC
ACAGTATGAGGGAAGGGTGT CAGGAATAACNCTTCCATTTTTATNTTGTTCATTCCCGAA
AATCCAACAGGAGATTCTTTTCACTCCCTAAAATNAACTGNTCTGTGTATAAAGCATATC
TGGATATCTTGATCTTAAATGGAATGGTATNTGAAAANNGCNCNACTTTTCTAAACT
TTAA AATTGCCCCTTTTTATTTTTAGCCCTGGGGGAGGAGGGAGGGAATGATTCCCAAA
AACTGACTGTTTCTTGNTGAGTGATTAATTACTGGTGATTATTTTTTGGGGGGGG
NAATTTAGCNGGAAAAAATTTTTTTTTCAGGGTTAAAACGCGCCTNNTAAAAAANTTGGGA
AATGNGCNGNAAAAGGGGGCCCTTTTTTCCCCGCGGNTTGGGGGNAACCCCGCCCGG
TTTGAANGGTNAACNCCCTTTNAAAAAANA AAAA ACTTGNTTCAAGGTTTTTTTTCC
AAAACCGAAAAATTTGGGAAGGTCTTTTATATAAANCTTGGAACCCGCCCCCGGGGTC
AAAACCCCGGNNNGGCCGTTTTAAAAAATGGTACCCCGCCNTCCGNTTTCANAATT
AACTTTTTTNCCCCNNCNCTGGGGGGGGCC

Sequence 2375

CTACTATAGGGCGAATTGGGAGCTCCCCGCGGTGGGCGGCCCGAGGTCTTCGACCCACGC
GTCCCGAGAATAGCTACTGAAGTCCTAAAGAGCAAGCCTAACTCAAGCCATTGGCACACA
GGCATTAGACAGAAAGCTGGAAGTTGAAATGGTGGAGTCCAAC TTGCCTGGCCAGCTTAA
TG GTTCTGTCTGGTAACGTTTTATCCATGGATGACTTGCTTGGGTAAGGACATGAAGAC
AGTTCCTGTCATACCTTTTAAAGGTATGGAGAGTCGGCTTGACTACACTGTGTGGAGCAA
GTTTTAAAGAAGCAAAGGACTCAGAATTCATGATTGAAGAAATGCAGGCAGACCTGTTAT
CCTAAACTAGGGTTTTTACCTGCCCGGGCGGCCGCGCCCGGGCAGGTACCCAACACAA
ACTATTCAATAAAGTAATCTGCTTTAAAAATAAAACACACTGAAAGGCCCAGGCAGGTGG
ATCACCTGACATCATTAGTTCAAGACCAGTGTGGCCAACTGGTGAAAATTAGTCTCGAC
TAAAAATACAAACATTAGCTGGGCGTGGTGGCAGGCGCCTNTAATTCACTACTCAGGAGG
ATGAGGCAGGAGAATCACTTGAAGCCAGGAGGTGGAATTGCAGTGAGCTNAAATCGTCC
ATTGCACTTGAACTGGCAACAAAATGGGGACTCCGTTNAAAAACCCCCCCCCA

Sequence 2376

CCGCGGTGGCGGCCGAGGTATCACGAGCGGCCGCGCCCGGGCAGGTCAATCATAGAGC

TABLE 1
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TGCCCCAACATCTAGACAGTCTCTCCTACTGATTATAAATGAGTGAAAACCTATCAGTTAG
AAAAATCTAATTTAAGTTGTTAATACATGTTTCTTTGGTGAGCACCTGGATATATTTATC
ACAAATTCCTTTATACAAATGTCGAAAATGGCTTTCAACAAACCTAAGTGTCTAATTAC
ATGCCACTTTTAAGCATCNNTTTAAGGGTAACCAAAAATGGAAACCTTATTTTNAATTA
AAATTTNGGGNCCCGGGTTTTANTTAANNACTNTGGCCNTTTTNAATNTGGGGNCC
CCCCGNNGGGGGNAAATTTTTTATATAAATTTTTTTTNNCCCCCCCCCCCCCTGGGGG
GGGNGCCCCCCCCCCCCNTTTTTTTTTTTTTTTTTTNNGGGGGGANNAAACTCNNCNCG
GGGGATAAANANANGGATAATNTTTTTTNNTTNGGAAATNTTTTTTTTTTN

Sequence 2377

GCGAATTGGAGCTCNCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTAAAG
CACTGGTGCTCTTCTTAAGTGAAATGTTAACACAGGGCTCAATACATAAAAGAGAAAGTG
AAGTTGTTCCATTTGGGGGGTCCCATAGGGGCCTCATGTTCCCTAGGTGTTACCCCTT
CAGACACAGCATGCCTACAAAGNGGACNCGTGGGGTGAAGCACCTGCCCCG

Sequence 2378

CTATAGGGCGAATTGGAGCTCCCCGCGGCGGGCCGAGGTCAAGCTTCGACCCACGCGT
CCGGTCTATTTTGATTNTGGGGGGTNATCAGCATTATTCTTCAGAAGGGGACCTGTTTTT
TTCAAGGGAAGAAACACTCTTATTTCCAAACTACAGAATAATGTGTNAAACATGCTAAAT
AGTTCTATCAGGAAACAAANCACTGTNTTATCTCCGNAGGCTATTTGNTCAGAGAGGC
CTTTGNTTAAATATAAATGTTTAAATATAAATGTTGTCTGGATTGGCTATAACATGTC
TTTCAGCATTAGGCTTTTAAAGAACACAGGGTNTTGTATTCTTACTAAAGATATCAGA
GCTNTTAAATGTTGNTTANATGAGGGNGANTGTNAAGTACCTGCCCGGGCGGCCGCCGCC
CGGNCAGGTCTTNGACCCACGCGTNCGGGCNATTATCAAAAACACTTGAAAAAGATTTT
TATTCCTACTTTTAAACATACATCAAAATCTAAATAAACTA

Sequence 2379

CCGGGCAGGTCTTCGACCCACGCGTCCGATTGAAGCCTCTCTGAAGTTAAACCCAACTAT
GTTTATTAAATGTGTGAAACTGAAAGTGGGCTAGGTTCTACCAAGGCTGTGGAACTCTC
CTACGAGTTCTGCTGATCAGGAAATTTAAGAAATTTATCTTAAAAATGCAAGGAAAAAGA
CTGCCTTGGAATTTGTGAATGCTGCTTTCAATCTCCTAGCACCGAGCCTGGCACTTAGGC
AGCTTTTCAAGTGGGTGAATGAATGACTGAATGAATGAATGAATGGCTCAGCTGAGGA
ATGTAACTTTGGTCAAGACCT

Sequence 2380

CCCCGGCGGGTTGGGCCGGGCCCGCCCCGGGGCCCGGGTTACCATTAATTATTACCAG
GAGGGTTNTTAATTCTGGTTAACCATTCAATTAATTGNTNAAAAGGTGGGGGGNAANGGG
CCAAAGGGTGGGGAA

Sequence 2381

TGGGAGCTCCACCGCGGGTGGGGNCCCGGGGGNCCCCNCCCGGGNNNNNAANAANGGG
GGGNNTTTTTNNNNNAAAAACCCCTTTTTNNNNNNCCNNTTTTTTTTNGGGAGTTG
GGGCCCCCTTGAAAAGTTTGGGAACCCCCCCCCCAANTTTTCCCTTTAATTGGGAAAA
TTTTGGGTTTTTAAATTTTTAAAAAGGGGGTTNGGGCCCCCAAAAAAAAAAAAAAAAAA
AATTTTTAAATTTTTAAATTTTTAAAAAAGGGGCCTTTTGGGGGNTTTTTTTTTTTT
TTTGGGGAAAAAAA

Sequence 2382

AACTTTTTATTAAATGCTTANGANACAGATTGACTTTCTTCGCAAATGACTGTTTTA
CTTTTCCTGAAGNAGGACATATATGCACTCTGATAAACTGCATTACAGCCTGCAGGACA
CCTTGGGCCAGCTTGGTTTTACTCTAGATTTCACTGGCGTCCCACCCCACTTCTCCACC
CACTTTTTCTTCACCAACATGCAAGTTCTTTCCTTCCTGCCAGCCAGATAGATAGAC
ACGGACGCGTGGGTGNAAGCTGTACCTGCCCGGGCGGNCGCTCTAGAACTAGAGGATCC
C

Sequence 2383

AGGTGCGCGCGGCCGCCGGGCAGGTACAAGCTTCGACCCACGCGTCCGCACAAACATTT
TTTCAATGTAGCAAAATCAAACTTAAAAAAGAAAGAAAGAAAGATGCCGAC

TABLE 1
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AGTGCGGAGTCTAGCCTTTTGTAACCTTCATATTGCACACTAGGACTATAAGCCATTGCT
AGCTCATTTTGAATTTAACGTGTAATTTTGTGTTATTTCTTTCTGTGGGGAACAAT
GCTTGATCCACCAATGCTCTTTTAAATGTTTTATAACTATGTATGTGTATATATAAAT
ATCAAATAATATGTATGCACATATGTGTGTGTATATATCTATATGTATATACATA

Sequence 2384

TGGAGCTCCACCGCGGTGGCCCCGGGCAGGTCGAGCGACCGCACTTTTTTTTTTTTTTTT
TTTACCTGAAAATGCTTATTCTAGCTTCACATTTGATTGTTTGGCTAAGAAGAAAATTAT
TTATTAGACTTAATTTTCTCACGAGTTTAAAGATTGCTTCAGATCTTAACTTCTAATG
AGGAAAGCTGAGAAGTCCAATGCCATTCTGATTCTTGCAACTTACAAGTAGTCTTTTTT
GTCTAGACGCTTTCAGGACCTTCTTTTTTCTCAGTCAGTGTATCCAAACCTTCACAGTG
ATATCTTTTGGGTACCTCGGCCGCTCTAGAAGTAGTGGGATCCCCGGGCTGCAGG

Sequence 2385

AGGTACTCATAGCATTTTCCCCACATAGTCTTCAAATCTGCATTTATTTCAAATCT
GACCTTCATAACTCAACTATACATGAATTGCTGGTATTGTCTTTAACTTGGCCAAAGAA
CAGTTTTCTGAGTTAGCTATTATTTCCACCATAAAATTGGGGGTAAGATTGGCAAAAAA
AAAAAAAAAAAAAGTGCGGCCGCTCTAGAAGTAGTG

Sequence 2386

AGGTACTACCCATTTTAATTACACAGTAAACAGAAGCACGGGTAAGTGACATACTCATAC
TTTAAGCAATAAGAATTAGAAGAAACCATAGAAGCTTGGGGCCTTCTCTCTAGCTCTAAC
CCAAAGAAAATGAATTTTATTTTTTTTTTTTAAAGAAAACAGCATCAATCACTTAAGAT
TTTCTTCTCTTTTTTTTTTTTTTTTACACTTGCTTATTAGTATAGNATCTCGTCCAA
AGCCCGGACGCGTGGGTGCAAGCTTGACACCTGCCCG

Sequence 2387

AATTGGAGCCTCCACCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACCCACGCGT
CCGTCTTATTTTTACTCTTAGGCAATGCGGAATATCAATCCAGCACAGCAAATCTCC
AAAATGTCAGGTAGGCTCTTATCTGATGTTTTAGCACTGGAAAAAAAAAAAAAAAAAAAA
AAGTGCGGGCCGACCT

Sequence 2388

CGGCCGAGGTCTTCGACCCACGCGTCCGAAATGACTGGTTATTTAGAAAAGAAGGATGTT
TAGAATAAAACAGGAAGTCCAAACATGTCATAAGTGGTTTGTGTATGTCATAATAAGGGA
TTATAAAAAGAGGATTTATGTGAAAAAATTTTATGTGATCAAGTTGTCTACAATTACAA
GGAAATTATTTATAATAGACGTTCTAGAGATCTATATTAAAAAAAAAAAAAAAAAAAAAA
CCTGCCCGGG

Sequence 2389

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACCC
ACGCGTCCGTCTGAACCTACACCCCGTCTCTTCACGGTTTAGACTTACTAAAATAAATAC
AAGGTGATTTTCATCTTCAGGTAGAGTGAAGCCTTTTAATTAAGGCGTCACAGGTGCAGC
TATTCTACCTTAATGAAATGGGTAGTGAATTTCCACCATTATTTATTTCCGGTGATAATA
TGCTGCATATTCAAGTCTCTTGAGTTATTTTCACCCAAAGTAGTTGACAATTTGATGCT
TCTGGTGATGTTTATGGCTTCATTTATGTAATTTTTTAAGTAAGTTCCACTAGAAACAG
TTCATCTTATACCTTCAAAA

Sequence 2390

AGGTACTATAAGAACACATTAATTCAATGGAAATACACTTTGCTAATATTTTAAATGGTAT
AGATCTGCTAATGAATTCTCTTAAAAACATACTGTATTCTGTTGCTGTGTGTTTCATTT
AAATTGAGCATTAAAGGGAATGCAGCATTTAAATCAGAACTCTGCCAATGCTTTTATCTAG
AGGCGTGTTTGCCATTTTGTCTTATATGAAATTTCTGNCCCAAGAAAGGCAGGATTACA
TCTTTTTTTTTTTTAGCAGTTTGAGTTGGNGTAGGGGTATTCTTGGGTATCAGAATAC
TCATATAGCTTTGGGATTTTGA

Sequence 2391

GTTCTGATTTCTTATTCTACAACAAGGGTCAGCCTACAGGCAAAACACATCCCATTGTCA
TTTTTTGTAAATAAAGTTGTATTGGAACATGGCCACTCTCATTTGNTTCTATTATTTA

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TGGCTGCTTTCACCTACAACCTGAGTGGNTGCCACAGAACTGTATGGGCCTGCAAAGTC
TAAAATATTTACTATGTAGCTTTTTCTTTCTTTTGGAGACAGTNTGCCACTCTATTGC
CCAGGCTGGGAGTGCGGTGGTGTGATCATGGGCTCATTGCAGCCTCAAACTCCTGGGCT
NAAGCAATCCTCCCGCCTCGGTCTCCCAAGTAGTTGGGACTACAGGCATGA

Sequence 2392

CCGGGCAGGTACCCAGTAATCACATAAATTCTGCAATCATCTGTTTATTTAGCTTAACTG
TTTTTTTTTATTTGNTGAAGNTGTTGTTGTTATTTTCAAGNCTTTTTCTTATTGGG

Sequence 2393

ACCGCGGTGGCGGNCGCCGNCAGGTCTAGCTTAGTCGACCCACGCGTCCGGGCTTAAC
TAATATTTGNNTGNGTGCTACTAACAGGATTATAATAAATTTGTCATCAGTGAAAAAAA
AAAAAAAAAAAAAGTGCGGNCCGNTCTANNACTAGTGGGAT

Sequence 2394

CCGGGCAGGTCAAGCTTCGACCCACGCGTCCGATTTTCAAGTTGACTTTTCTACCTTTAA
CCTCTTTATATAGCACAGTGCAATCTGGCCCTACTGCCACTTCATCTGGGTTATCTGTAG
CTTGAGTTGTAAAAAAGT

Sequence 2395

AGGTACTGTTGTCTCATGTAATGCTAAAACTGAAATGGTCCGTGTTTGCATTGTTAAAAA
TGATGTGTGAAATAGAATGAGTGCTATGGTGTGAAAACTGCAGTGTCGTTATGAGTGC
CAAAAATCTGTCTTGAAGGCAGCTACACTTTGAAAGTGGTCTTTGAATACTTTTAATAAT
TTATTTTGATAAATAATATTGAAAAAAAAAAAAAAAAAGTGCGGCCTCGAGCGGCCGCC
CGGGCAGGTACAGGCACCTATAGAATTTAAAGGGGAGATTTCTTTATTTTGTATTCAATG
TATTAATAAGATTTTTTAAACATATTTTGGAGAAATTGCTAAT

Sequence 2396

AGGTCCTAGCTTGAGTCGACCCACGCGTCCGATTTTTGCCTCCAGACTACAGATCAGAAA
ACTGAGACTCAGAATGTTTCAATTCCTTGTTTAAAGATCACAAACTAGTTTGAGGTATAA
TGGAACTGAAAAAAAAAANAAAAAANGT

Sequence 2397

AGGTCAAGCTTCGACCCACGCGTNCGGAAAGTNTTCATTCTCCCTCTTTTTTTTTTTTTT
TTAGCAATTCAGNCATGTTTTGNCACAAAGTTTTTCCAGTATTGTATAGATAAATAAT
AATTTACNAGGCTGCCTTTGAGTATACTTAGACAAGAGACCTGCCCGGGCGCCGNTCTA
GNACTNGGTGGANCCCCCGGGCTGCCAGGNATTTCAATATNAAGNCTTATNGTTACCGN
GCGACCTACGAGGGGGGGG

Sequence 2398

CGGCCGCCCGGGCAGGTATCAAGTGCTTGGATTCTGAACTGNCAAAAGAAAAGTCACTT
GCCCTCTGAAGTAAAAACCGAAATGAGNTTCTTAGGCAAATGTATTCATCAGCCAGAT
AAAAAAAAAAACCANNTAATGNGAGCCNTTAGTCACTGCT

Sequence 2399

AGGTACAAGCTTCGACCCACGCGTCCGATACGACTCACTATAGGGATCTACCTGCTTGAG
TCGACCCACGCGTCCGAACACATACAAAAGAATTAACCCACAAGCTGCCTCTGACAGCA
GCCTGTGAGGGAGTGAGAACACCTGGCCGGGTACCCCTGTGACCCTCTCACTTTGGTTG
GAACTTTAGGGGGTGGGAGGGGGCGTTGGATTTAAAAATGCCAAAAGTTACCTATAAATT
AAGAAGAGTTTTTATTACA

Sequence 2400

AGGTGGCCGCACTTTTTTTTTTTTTTTTTTAAAGTTTGGGGTCTGTCAGGAGACAGA
GGCTTTTTTGAATTCAGTGTGAAGAGAAGAACCCGAACCTTAAGACGGCAGATCCCTGAG
AGTCTTCTGGCTGGTTTGAGCGGACGCGTGGGTGACACCTGCCCG

Sequence 2401

AGGTACTTCAAAGTTATTTGCACATACACTTGTACTTTGNATGTTTTGCAGGATTAAA
CTTTGTATAATCTTTTGCAAAATTTTTTTTTCAGTATGCAANGCTTGCAAGATGAAAT
TAAAACC

Sequence 2402

ACCGCGGTGGCGGCCGAGGTACAAGCTTCNNNCNACTCGTCCGAGCTTGAGTCGACCCAC
GCGTCCGCGTTNATGATTTTTAAACACACTTGAAATAAAAATGATTGAACTAAATTTTG
GTCCGGNGACATCATTNTGCACTGCATAGCCCA

CCGGGCAGGTACATCTCTATCAGAGCTTTTGGGTGACCAGGCACACTGTCAATGAGCAGT
AATACTTTGAAAGGAATCTTTGGGGTTTTTTTGGTTTGGTTTTGTTTTGTTGTTATTT
TTTTGTTNGTTTGATTTTTGTTTTGNTTTTTAGCAGNAGGCCTCAACAGNGGACTTAA
AATACTCAGTAAACCATGCTGTTAACAGATAAGCTGNCATCCAGACTTTGNTGTTCCATT
TCTAGAGCAGACAGCAGATTTAGCACAAATCTTAANGCTTTATGATTTTTCANAAATGGTA
AANTGAGCAGCTGGCTTCAA

NTTTTTTGGGGGGGGGAAAAACCCCNACCCCNCCANANAGNCANGNAANAAGGGNTTTT
TNACANNNNAGGGGGGGGCANCCCCCAAAAAACNNNCNANGCANGAAGNANANNNA
CAAAACANGNANGNAAGNNNNCACGNGCTTTTTTTAAAAATTTTTTTNNNNGGGGGGG
GGCCCCCCCCAAAAAANGAGGACGNGGAGCCCCC

CTNCTATAGGGCCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTTTTTTTT
TTTTTTTTCTTTCTGTTCCCTGGACTAGATAATCTGAAATCAACTGTCTTCAGTTTTGC
AGACTCTTGTCAGCTAAAATGTTCTGTTGAGCCCCAGAAGCTAATTTCTTTTCAGTT
ATTATGATTTTCAGCTTTAGAATTTATTTTTTAATAANNCTACCTCTTTTTATAT
TCTCCATTGGNGAGACATTCACATACTTTCTTCCAGTTTTTTTAGACGTAGTTTCCTT
GAGTNCCTNGAGCATATTTAAATAGTAGATTTAAAGGATTTGGCTAGTTACTCCACNT
CTGAGNTTCCTCAGGGAAA

CCGGGCAGGTC AAGTCGACCCACGCGTCCGCTTGTTTTGCTCTATCCCATAGGAGTTGGT
ATAGTTGTGTTTCCAATATCATTCTAAAGAANANTNTCCTTTTATTTCTTCATTGA
CCAAGT

[illegible]

AGGTCAAGCTTCGACCCACGCGTCCGGCCTGGGACAGATCCTTAGTCTTTCCTTGACTTT
TATAGACCCAGAGGTGAAAGGCCAAATGTTTTGTAGAATGTCCTTAAACTTGGGTTTATC
TGAGGTTTCCTTGATTGAATTCAGGTTAGACATCTTTGATGGGACTGTCATAGAAGTG
ATGCTGTGTTCTAATTGCATCTTATCAGGTGACTTATGATTTCGTTTGNCCATTATTG
ATGCTGNTACTTTAGATCACTTGATTAAGGNGGTGTCTCGCCTGGCTTCTCCAGTGTGAA
ATTTCTTTTTCTTCT

AGGTAATTTTCTGCTTGCCCAAGAAACAAAGCTTCTGTGGAACCATGGAAGAAGATGAA
AATGAGACTGGCAAAGAACAAATGCTGAATCTGAAGAAGATTTGGGCAAATAATCTGCAT
ACTTTTAATTGGGAATAAGATGGAAAATATGAATGCTAAATCAAATTTTTTAAAAAATA
CACCCGGACGCGTGACCTGCCCGGGCGGCCGCGCACTTTTTTTTTTTTTTTTCAAT
ATTATTTATCAAAATAAATTTATTAAGATTTCAAAGACCACCTTCAAAGTGAGCCTG
CCTTCAAGACAGATTTTTGGCACTC

ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGGNGGGGAGGAAGGCAAGGCACTGGGA
AAGACTNACAACANATATTGACCCTAGTCGTAAAGAAATCCATAATTGCCAGTAACACGA
CNTATTTAAGAACAGGAAAAGACNGACAAGGAAAAGAGGGACTTTTTTAAAAAACATTA

TABLE 1

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CTAAAGAATTNGGACATAANAAGAGTGAAATTGACAAGGAAAGGAGGAGGGGGA

Sequence 2411

GAGCTCCACCGCGGTGGCTGGCCGCCCGGGCAGGTACATAATATACAGAGGTATAATCTG
TAACATCAATAATGTAAAGTGGGGAAGGGCAAGGTGGAAAAGGAGTAGAATGCTTGTATG
TGAATAAATTATGTTGGTATCAGTTTAAAATATATTATTATAACTTTAGAATGCTATAC
CCATTCCCACAGTAATTCCCATAGNAACCAAAAAGAAAATATCTTGTNGNATACACACAA
AAGAAAATCAGAAAGTAGATGCAAACCTTGCTACTACAGGAAAAAAAAGCTATCAAAATAG
AAAACAATNATGGNGAAAAATAAAGACA

Sequence 2412

CCGGGCAGGTGCCGCACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTATGGAAAAATATT
GTGATTATTTTTAATAGATTTACGGTATAAAAAGAAAACTTTTATGATNCAATTTGACA
GACTACTTTCATAAAAAATTTTACTNTACATACAATGTATTGCAAATTTTTNGGCAAC

Sequence 2413

NGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGATTTT
GTGAGAATGATTGTTCTTCACTTGGGCTGTTTGAGAGCATAATTATGGTAATCATGAGA
TTAATGTTTCATGATTTCTACCTCCAAAGTGTGAAGACAAGTNAAACAATGNTTCTAAAT
TGTCTTATTTTGTGGCGGAGAAGATTACAATGGGCTATTAGTGCTACATTTGGTCAAAT
GTAATCACTTAAATAGCTTCTTGTCACCTTAACTAAAGCAGAATAAAAAAACCTGCCCC
GGGGCGGCCCGNCCCGCCCCGGGCAGGTACCATTCCCGACGTTTGCAATGGTGGGAGTTG
GCAGGTGTG

Sequence 2414

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGCTTCGACCCACGCG
TCCGCTTCTCTTAGAATTTTGGGGAAATTGATAGTCCAGTGACTCCTACCCACTTTTGGG
TGAAGGACGATTTGGAATTTTGAAGTGTGGGGAGACAGGCCTGTGAAGTCCGAANGACTC
ACTTGGGGT

Sequence 2415

CCGGGCAGGTCAAGCTTCGACCCACGCGTCCGAAAAAAAAAAAAAAAAAGTTTGTGGAGA
CCGACTGGGGGTGAGGGGCTGGCAGCAGGAGACAGATAACANGTTCNCTCAGAATGCAGA
GT

Sequence 2416

ANGTTTTTTTTTTTTTTTTCANTGCTTCCCAAAGCTGCGGACATAAGGGTAGCTGANCTG
GACTCTGNCTTGCTGAAGACTTGGAGATGTCTGAAGTCATAACTGGGGNGACCTCCTTG
GTCCAAAATGTGCTGCCCCCTATGAATCCACATCAGGAGTTGTAGGAGATGAGGTTAGA
GGGATGCTTGGGCTCATCTGGCTTCTTCAGCATAGCCCGGACGCGTGGGTGCAAGCTTG
ACCTGCCCCGGCGGCCCGGCCGCACTTTTTTTTTTTTTTTTTTTTTT

Sequence 2417

CCGGGCAGGTTTTCTTATGAGTGGGAGGTGACTGATCGTGGAGGTGGATTTCTTATGAGT
GGGAGGTGACTGATCGTGGAGGTGGATTTCTTATGAGTGGGAGGTGACTGATCGTGGAGG
TGGATTTCTTATGATTGGCTTATCACCATCCCTCCTTGGTGCTGTTTTGCAACAGTGAG
TGATTTCTTGTGAGATCCGGTTGTTTAAATCCAGAGGCACCTNCCCCTACCCTCTAGCTC
CCATTCCTGCCATGTAAGACACCTGCTCCCCCTTTTCTTACCCCATGATTGGAAGCTTT
CTGAGGCCTCCCCAGAAGCTGATGCCAGCCCTATGCTTNCT

Sequence 2418

CCGGGCAGGTCTTCGACCCACGCGTCCGCACATTTTGATGGTCAGTCAATAACTTAAGCA
GNTACCAAAATACTAGGTATCCAAGGAGCGAGAGGTGGGCCGAGCATAAGAAACACATTT
CTNATGGCACAGCTCTGCCAAAGCCCTGCAGAAATCATTTACACATAGGTCTTTGGTTAGT
AGCCCCGTGGCAGAGAANTCTGATCTTAAACAAATATTGTCTATAATCAAGTAGAGCAATG
CAATTAATAAAAAAAAAAAGCACAGGNTTTTGGGCCATNGCTGAAATCCCAGCCTTGCTA
TTTTGCTTGGCTGNGTGACCGGGGTTTCCT

Sequence 2419

AGGTGTACAAGCTTCGACCCACGCGTCCGGGATGAGTTTGTATGTGTAAAGTGCTTGAAA

TABLE 1
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CAGTGCCTGCCACATACTAAGTGTGGATAAGTGTGGTTATTAAAAAAAAAAAAAAAAAA
AAAGTTGCGGCNCGGCCGCCCGGNCAGGTAAGTGGCGTGGATTCTGCATANTGGNGATCAC
ACGTTCCACCTCATCCTCAGTGAGTTCTCCCGCCCTCTTGGAGAGGTCAATGTATGCTTT
CNCTCAACACCACATGAGCATATCTTCGGCCACACCCCTTAATGGGCAGTGATGGCAA
GGCTATTTCCGCCG

Sequence 2420

AGGTATTCAACAAGGGCCCTGAGAGAGGGACAGGCAGCCCTGTGAATCTTGCTGTTCAG
CANAGACAGGANTCAGCACGTGTGAGGGCAGCAGGGAAGTCTTCCTGGAGGAGTGAGACC
TGGCGATGAGGAGGCACGGCAGGGAGGTGGAACAGGCAGGAGAGACTCTTCANGAATTGA
GGAGATAGAAATAGAGGACACTAAAGCCTTAGAGAGGCCAGGGGTGGTGGCTTGGCAGGAN
CATCGCTTGAGGCTAGGAGTTTAAAAGCAAGCCTGGGCAACATATCCGAGACCCCATCT
CTAAACACAAAAATAAAAAA

Sequence 2421

CCGGGCAGGTACCCAGTAATCACATAAATTCTGCAATCATCTGTTTATTTAGCTTAACTG
TTTTTTTATTNGTTGAAGNTGTTGTTGNATTTCACTCTTTTTCTTATTGGGGTTGAC
CAGACTTGGGTAAAATCTGTAAGAAAAGTNCCATAATTATGGGGGAAGATTCTCTTG
AATTGGCTTAAATNCCTGTTAGCTGAAAAAAAAAAAAAAAAAAAAA

Sequence 2422

CCGGGCAGGTCTTNGACCCACGCGTCCGAGCAAAATTCACTAAAAATACAATCTGGATT
CCATAGCCAAGGGTTTTATTTACAATNTCCTAGTAGGAAGTCTTTATTTTAGCTTTCAAT
GTGTTGAACCTATAAGGAAATTTAACGTATACATGAGTATTATTTATGGAATGTGAAG
ATATACAGAATGGAAATGGAAAATAATGTTAATTCGTATTGACTTTGAGGAATCTTANAA
TCATGTAGCCCTGTTGCAACAAGAAATAGGGAACCTCTGAA

Sequence 2423

AGGTCAAGCTTCGACCCACGCGTCCGGTTTGTTTTTCTTACGGCAACTCAAAGCAAAG
AGCTGGAGGAGCCAGCCATTATAATTGCTTACTCTCATCGCTTAGCGCCCCAGGTGGGAT
GTGTTTCCAAAACACATTTTGTATTATAAGGAAATGTAGTTAGGATTAATTTTATTGT
CCTAATTAGAACTCACATTTTGGTTAAATCCTCAATTTTATTAAAAAAAAAAAAAAAAAA
AAGTGCGGCCGCGCTCGACCTCGGC

Sequence 2424

AGGTGCTTCGACCCACGCGTCCGACTTAATTGAGAAGGTGGAATCCTCCTATCCCTGAAC
TCGGGGGAATGGAATCTCGCTGATCTTCAGGACTAGCTCCCTGATCATTCCAGCCCCTC
TGAACAACAGGGCCCCTGGAGATAGAAGTAGTCCTATTTACCCCCAACTACAACATTAAT
GGGAAAAAAGAAGCAGGAATTCCTGAATTTTATGACTATGACGTTGCCCTGATCAAGCTC
AAGAATAAGCTGAAATATGGCCAGACTATCAGGCCCATTTGTCTCCCCTGCACCGAGGGA
ACAACCTCGAGCTTTGAGGCTTCCTCCAACCTACCACTTGCCAGCA

Sequence 2425

AGGTACAACCTCTCTTTTTTGGAGTTTTACTTGCTTCTATCAAGAAAGACAATTTTCCTG
TTCCATGACGTTGGAGTTTGGCTCACTTCCAACAGGGAAAAGGAGTGTTTTTTTTTGT
TTGTTTTGTTTTCTGCTTCTTGAATGGTAGAGAGCAGTCTATAGCCAGAGACTCGTCC
CTAGGTAAGTAACCTGAATTGGGGTTTGTCTTGGTTAAAGTTAAGATTAACGACCAACTGG
TCTTAATTTCTCCTTACCATTAGAGCACTCAGTTATCATATAAATTGCGCCATTGTTGT
TTGCCTAA

Sequence 2426

AGGTCAACCGCCAGGGTCAAACGGAACACAACCCACTCTCAGGAAGACATCCCTAACACA
AATCCAGGGACTTTGTTTCTTAACCTTAAATTTGGAACACTTCTTGCTACCAGGGATGG
GGGGTGGGGCTCAGCAGTTTGGGGAACGGAGTGGGAGTCTTTGCTGAACCGGACGCGT
GGGTGGAAGCTGGACCTGCCCGGGCGGCCGCGCACTTTTTTTTTTTTTTTTTTTGAG
AGTGGCTATTTCAATTAANATTTAATAGTTTTTTTGGACTAAGTAGTGGAACCACTTTTA
TACTTAACTGAGACATTTTGTCAAGGCTAAAAAAGT

Sequence 2427

TABLE 1

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'AGGTACATCCCACTATTTCTTTCTTTTAGCTAGAAAGGTATAACGTTAAAACCCCTTTT
CCAAATAAAATGATTTTATTTAGAAAATGCCGGGCACTAAAAAAAAAAAAAAAAAAAA
AAGTAC

Sequence 2428

CCGCGGTGGCGGCCGAGGTACCTATTTGTATATGTGAGATGTTAAATAAATTGTGAAA
AAAATGAAATAAAGCATGTTTGGTTTCCAAAAAAAAAAAAAAAAAAAAAGTGCGGCCGGC
CGCTACCTGCCCGGGCT

Sequence 2429

AGGACAATGCTGTAGATAATGCAGCCCATGCAATACACCCAAGAACACTAGAGTCCTACA
CCCAAGTACAATATGATAAAGCAGCCCTCTGCAAGTGGTGCTGGATACCACTAAGAAGTC
TACTGCAGCCATGTTGGTTATGATTTTCCATGCAGAAGGGTACAGTTAGTTCATATTTAT
GTATTGCACATAATCATGCTATTGAGCATTGATGCTATATTGTATTATGTAAATAATAAA
AGCCATGTACAGAGGGAAAAAAAAAAAAAAAAAAAA

Sequence 2430

CCGCGGTGGCGGCCGAGGTATTCGACCCACGCGTCCGTAGTTTTATCTTTGACCAACCG
AACATGACCAAAACCAAAAGTGCAATCAACCTTACCAAAAAAAAAAAAAAAAAAAAA
AGTGCGGCCGNTCTAGAAGTAGTTGGATCCCCCGGGCTGGAGGAATTC

Sequence 2431

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTGAGTCGACCCACGCG
TCCGAGTCAAGAGAACAGCACATTAGTTCCAGAAGAAAGATGGAAATTCTGAAAACCTGAA
TGTCAAGAAAAGGAGTCAAGAACAAATTCACAGTATGAGAAGAAAAATGGAAAAAAACT
TTATTTAAAAAAGAAAAAGTCCAGATTGTAGTTATACTTTTGCTTGTTTTTCAGTTTC

Sequence 2432

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCTGTTCTGATTTCTTATTCT
ACAACAAGGGTCAGCCTACAGGCAAAACACATCCCATTGTCATTTTTTTGTAAATAAAGT
TGTATTGGAACATGGCCACTCTCATTTGTTTTCTATTATTTATGGCTGCTTTCACTTACA
ACCTGAGTGGTTGCCGCAGAACTGTATGGCCTGCAAAGTCTAAAATATTTACTATGTAG
CTTTTTCTTTCTTTTGGAGACAGTGTGCCACTCTATTGCCAGGCTGGAGTGCGGTGG
TGTGATCATGGCTCATTGCAGCCTCAAACCTCTGGGCTCAAGCAATNCTCCCGCCTTGGT
CTNCCAAGTAGTTNGGACTACAGGGCATGAGCCCNCCATACCCCGGNTAATTT

Sequence 2433

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGAAAATGTTTTCTTTTTT
AATTTAAGGTTTAAATTCCTTTGCCAAATCAAAAAAAAAAAAAAAAAAAAAAACGNT
NGCNTGCCNGGCCGCGGCCGCGNCTTACTTTTTTTTTTTTTT

Sequence 2434

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGCAGGTCTTGAGTCGACCCA
CGCGTCCGATAAAACACCGCCTTCAGTGTAATAATTTTACATGGTATCTGAACAACATTT
ATCCAGAGGTGTATGTGCCAGACCTTAATCCTGTTATATCTGGATACGTGAGTATTTCC
TGTTCTTTTTTAATTAATACTCCTTGCCACCAACCTTTATGTGGTTCTAAGAAAATT
GCTGAAATACTTTCTTTATTGCTTTTGAGATTTTACATTATAATCATTAACTTACTTTC
TAAATTATTTTAAAAATATATAAATCACATGGATTAATAAACTTTTCATAACTTGAAAT
TTTCCTTTAGATTAAAGCGTTGGTCAGCCTCTATGTCTGGGATGTTGGAGAAAACAATC
AAGGAGGCAAACCATTAATTATGTATACATGTCATGGACTTGGGGGAAACCA

Sequence 2435

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTTTTTTTTTTTTTTTTTAAATG
GTTAAGCTACTCAAATTGTTTCAGAGCCAGAGTAAAAACCAAAAAAAAAATACTCATCAAT
ATCAATTGCCAAATTCAGTCTGAAAACATTTACACACAGCTTACCAAGTATAAAGCTG
CTGGGGGGACTTCTGAAAANTTGGCAACATTCATTNGGGGCTTNGAAATGCTTTACAAGG
GGAAGGNTTTTTTAANGCAGGGCTTACNTGGGTTTTCCCCCAAGGCCCTGGNNANGTTT
NCCNAAAATNAAAGGGGGGGGGCCCCCTNGNNGNGGGTTTTTTCCCNNNCCNCCNNAN

TABLE 1
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CATNANGGGGNGNGCCCCNCCNNTTTTTNTTTTTAAAGGGGNAAANTTTTTNCGNGNN
TNTGAAAAAGGGTTTTTTTAAAACCCCGGGGGGGTTTTNTNTNNTTTTTTAAAAAATA
TTTTTAAAAGGGGGGGGGGNGNTGGGNNTTTTTNTGGNGGGAAAAANNTNTNACACCCC
NNTAAAAANGGGTTTTTNCNNATTTTTTTTTNCNNCCCCAAAANANGGGGGGGGGG
GGGGGGG

Sequence 2436

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTCATTTTATTTTAC
GTTGTTACGATATGGGGAGTAGTGTGATTGAGGTGGAGTAGATTAGGCGTAGGTAGAAGT
AGAGGTTAAGGAGGGT

Sequence 2437

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGC
GTCCGGCCTGGGACAGATCCTTAGTCTTCTTGACTTTATGACCCAGAGGTGAAAGGC
CAATGTTTTGTAGAATGTCCTTAACTTGGGTTTATCTGAGGTTTCTTGTGATTGAAT
TCAGGTTAGACATCTTTGATGGGACTGTCATAGAAGTATGCTGTGTTCTAATTGCATCT
TATCAGGTGACTTATGATTTCTGTTTGTCCATTATTGATGCTGTTACTTAGATCACTTG
ATTAAGGTGGTGTCTGCCTGGCTTCTCCAGTGTGAAATTTCTTTCTTCTTTGTAATATT
TTGTGGGGGAAGTAACCTTAAGACTATGTAAGTGTTCATTTCTTTCTTTCTTTGA

Sequence 2438

TACTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCAC
GCGTCCGAAAGATTCTTGGCTGAGCATGGTGGCTCATGTCTGTCATCTCAGCAATTTGGG
AGGCAAGGGCAGGAGGATAGTTTGAGCCCATGAGTTTGAGACCAGCCTGGACAACATAGT
GAGACCCCATCTCAGCAAAAAAAAAAAAAAAAAAAAAAAAAANGTGGCGCCGGCCGC
CCGGGCAGGTACATGACTATATCAGGATTTCAAATTGAGGAAACCATTGACCGCGAGACT
TNTGGCAATTTANAGCAACT

Sequence 2439

CCGCGGTGGCGGCCGAGGTACCTATTAAGCTCATGAACCATAGAGGTATCTCGGTGGCCC
CTCATTACCATCTGCTGTTCTTTCAGCTGTTTAGCTACATCTTTGGCTGAGGAACCAGAC
ACTTCAATCCATGTCTTAGAGAAGAATGCACATGACCCCAACATGAAGATGATATAAACA
ACGACATGGACAG

Sequence 2440

TNCTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGGCCGCACTTTTTTTTTT
TTTTTTTTTGAAGATAGTTTATTATTTTATTGTTTTTTGTTTATACATGTTAAGTTTCAA
CTTTCAATAATAAAATTCATAAAATTTGATTCTTAATCATAAAAACCTGCTTTACA

Sequence 2441

CTATAGGGCGNTTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCGACCC
ACGCGTCCGATAATTTATACTAAATTTAGTAAATGGACTTCTTATTCAAAGCATCAATA
ATTAAAAGAATTATTTTAAAAAAAAAAAAAAAAAAGTGACCT

Sequence 2442

GGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGACAAGCTTCGACCCACGCGTCCGCTT
AATAGCAAAGGATAATTGAAATCCCAAACCTTACAAGGTTTTCAACAAAAGTGAAGTTTGC
TTAAAGTTAACAGTGTAAACATGTATTATGGTAACTTCTAATCTTGTGGCCTTAGACAGTC
TAGTCCAAAGGCATAAAGAAAGTTTGCTTTAAAAAAAAAAAAAAAAAGGAATGGTTATCTTCA
AAAAAAAAAAAAAAAAAGTGGGGGGAGACAGAATTTATGTAAAAAGAGTGTTATATGGTAAATT
CTTGTCCTGAAATAAACTAACTGGTGTTTAAAGAAAAAAAAAAAAAAAAAANGT

Sequence 2443

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTT
TTTTTACCTGAAAATGCTTATTCTAGCTTCACATTTGATTGTTTGGCTAAGAAGAAAAT
TATTTATTAGACTTAATTTTCTCAGAGTTTAAAGATTGCTTCAGATCTTAAACTTCTA
ATGAGGGAAAGCTGAGAAGTCCAATGCCATTCTGATTTTGGCAACTTACAAGTAGTCTT
TTTTNNNTAGACCTTTTTCAGGACCTTTTTTTTTTCTTAAGTCAGGGGGTTTNCAAAAC
CTTTCNAAAGGGGNTTTTTTTTNGGNNNCCTGGGCCGGTTTTTAAAAANTAGGGGGGAN

TABLE 1

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CCCCCGGGGNTGGGGGGGAATTTGATNTNAAAGTTTTNTNGATCCCCGCCCCCNTGG
GGGGG

Sequence 2444

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTTTTTTGAATGTTTGAAGTAACTCATTTATTTCTAGGATTTGGATTCAACATTT
TAATTCCTTTGGAATATAAGTCACTTTTTGCAAGCTAAAAATAGAATCAAATAAGGTG
ATCTAAGTCCTCTAGGCATCCAGGCTGATCCTTGAATCATGAGCAGAATGATGACATAC
TACANGGGGCTAGCAATACCGGNTNTAACTNTTAAATAATANCCCTNCATGGTTTTATT
AGGGAACCAGCCAAAAGTCCCGNCCCTTTTAAACTNGGGGGANCCCCCGGGCTTNNNGG
GANTTCGATATTNAACTTTTTTNGAAACCCGCCNCNCNNGGGGGGGGGCCCCGGGCC
CCNACNTTTTTTGTTCCTTTTAANGGGGGGNNNNAAATTCGCCCCNCTGGGGGGGAA

Sequence 2445

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTATTGGTATTTAGTTTTATTTATAATCATAAACTTAACCTGCAATCC
AGCTAGGCATGGGAGGGAACAAGGAAAACATGGAACCCAAAGGGAAGTGCAGCGAGAGCA
CAAAAGATTCTAGGTTNNTGCGAGCAAATGGGGTNGGNGGGGNGCTTNNNTGNTAAAN
AAGGGATGNNNTTGGGGGTTTAAAAAAACCCNNGGCANNCTTTTTNGGGTNNNCCCN
ANCCCCAANNNGGGGGGNNNTTTTTGTGGGGGGGTNGNNTNTTTTGGGGGGACNCAAAA
ANGNNNTNTTGGNCCCCCNAAAAAAAANTTTAANGGCNTTTTTTTTTTTTTNTAAAA
AAAANNNAAGTTNNNTTGCNNANNNCNCCCTNTTTTTTTGNGGGGGGNGGNGAAAA
AAAAAANNNGNNGNCCCNNTTTTTNNNGGGGGGGGCCNAANTTTTTNTCNNTNAAA
AAAAAATCTCCCCC

Sequence 2446

CCGCGGTGGCGCGCCCGGGCAGGACACAGGAGGCCTTATTACTTTTAAATTATACAAC
ATTTTTTGCTTAAATTTTTTAAATAAAATTTTTCTTTTATGACTTTGCAGACAATTT
TTTAAACATGTTTAACTTTTTGACTTATTACAAACATTCTTTCTTTAAACAACCAGTT
AATTTATTTCAAGACAAGAATTTATCATATAACTCTTTTTATATAAATTCTGCCTCTCC
CTTTATTTTGAAGATAACCATTGTTTTTTAAAGCAAACCTTTCTTTATGTGTTTTGACT
AGACTGTCTAAGGCCACAAGATTAGAAGTTACCATAATACATGTTACACTGTTAACTTTT
AGCAAACCTTCACTTTTGTGAAACCTTATAAGGTTTGGGGATTCAATTATCCTTTGCT
ATTAATAAGACCTTGTTCACTCTAAATTAACCTAAA

Sequence 2447

NCACTACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCAC
GCGTCCGGGAGAATTACCCGAAAAACAACCACACTGCTTCAATCCTGGACAGGATGCAGG
CAGATTTTAAAGTGCTGTGGGGCTGCTAACTACACAGATTGGGAGAAAATCCCTTCCATGT
CGAAGAACCGAGTCCCCGACTCCTGCTGCATTAATGTTACTGTGGGCTGTGGGATTAATT
TCAACGAGAAGGCGATCCATAAGGAGGGCTGTGTGGAGAANATTGGGGGCTTGGCTGAGG
AAAAATGTGCTGGTTGGTAGCTGCAACANCCCTTGAATTGCTTTGTCGAGGTTTTGGG
AAATTGNCTTTGCCCTGCTTGCCTCGTGAAGAGTTTTAANAAGTNNCTTCCNNAGGNTNA
NNTAAGGNTCTTNGGTCTTTNTNANNNCCTTCNTTANTTTGGGGGGNG

Sequence 2448

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCGAGGTGCCGCACTTTTTT
TTTTTTTTTTTTTTTTTGAATTTAGCCACTTCTCAGGCCTTNTTCCCCATAATTTG
GAACCTTCTTTGGATTGATCAAGTTGGATAGAGTTGATCAAACCCTGATCAAGTTGGA
TAGAGTTGATCAAACCAATGGGAAAAAGACCAAAACAATAAAAAACAGACAACAAC
AACAAAAACAGTTAGGCAAAACAACAATGGCACAATTTATATGATAACTGAGTGCTCT
AATGGTAAGGAGAAATTAAGACCAGTTGGTCGTTAATNTTAACTTTAACCAAGACAACCC
CAA

Sequence 2449

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTACAAGCTTCGACCCACGC
GTCCGCGAAAGCGAAGAAGGAAGCTCCTGCCCTCCTAAAGCTGAAGCCAAAGCGAAGGC

TABLE 1
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'TTTAAAGGCCAAGAAGGCAGTGTTGAAAGGTGTCCACAGCCACAAAAAGAAGAAGATCCG
CACGTCACCCACCTTCC

Sequence 2450

CCGGGCAGGTACTTTTTCTAATATACTTTTCNATTACACATGAAAGCCATGACAGGAACT
GAGATAAGATTTCTTTGTTTTTGAACATCTTATCTACTAANAAAATTTNNAAAATCAT
TTNACTTNAAAAGCTATTAGTAGTTTTATACTCNCCTTAATAAGTATTAATAAATTTACATA
CTNGACTTAGTAANCTAAGCAATTTGGNTAACGNTTTNTTTATTNGAGNGANTTTTTGC
CANTTGGATATTTTTNCTACCTTACTATTACNTTATAAATATATTTCCCCAAATATATCN
TTCCTCTTTAAAAANTATGTTTTGNCAACNAACCTTNAAA

Sequence 2451

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCAAAGTTATTGCAC
ATACACTTGTTTACTTTGTATGTTTTGCAGGATTAACTTTGTATAATCTTTTTACAAAA
TTTTTTTTTCAGTATGCAAGCTTGCAAGATGAAAATAAACCTGTTGCCTGATAAAAAA
AAAAAAAAAAAAAAAAAAAAATGT

Sequence 2452

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAGCTGATTACACCAACTT
GAATGAAACGACTTCTCTTGTAAGTATCAAGGGGCGCCAGAATCACCTCTGCAAGTAT
TGGGGTCAGCATAGGGACTCACTCCTCCAGTACAAAGGAACCGAGGGGTGACCACCTCTG
AGATGTCTTGACTTTGTCATAGCCTGGGGCATATTGAGCATCTCTCTCACAGCTGCCTT
TCTTATCCCCATTCTTGATGTAGACCGGCCGCCGGGCAGGTGCACATACACCAAATGTC
TGAACCTGCGGTTCTCTCGTACTGAGCAGGATTACCATGGCAACAACATCATCAGTA
GGGTAAACTAACCTGTCTCACGACGGTCTAAACCCAGCTCACGT

Sequence 2453

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTTAAGAAATAGGGTCTCACTCTGT
CCCCAGGCTGGAGCCATTATAGCTCACTACAGCTTCTGACTCCTAGGCTCAAGGGATCC
TGCCACCTCAGCCTCCCTGGTAGCTGGGACTATAGGCAGGAGATCGCTTGAACCGGGAGG
CGGAGGTTGCTGTAAGCTGAGATCGCGCCATTGCTTTCCAGCCTGGGTGCCAGAGCAAAA
CTTTGTCTNAAAAAAAAAATTNTTTTTTTAATTAATAAAAAGGNCAGGGGATTTTTT
GGGAAAAGGTCNAAAAAATAATTGNCTTTTTGAAAAANCCTTGGNAAAAANCCAAAAA
AAAAATTNGGNGGGAAAAAATNNTTTNNTTNGGGANAAAAAANAAAAAANNT
ANGGGGGGGGTTTTTTTTTNGGGGNGNGGGGGGGGGNAAACNCAANCCCCCCCCNNTT
ANAAAAAAAAGGGNGCCCCCCCCCNNGNGGNAANGNGNTNTTNTAATTTTTTTTT
TTTNNCCCCCCCCCCCCNNGGGGGGGGGG

Sequence 2454

GAGACACAGTCTCACTCTTGCCAGGTTGGTCTAAACTCCTGGGCTCAAGCAATCCTCC
CGCTTTCAGCCTCCCAAAGTGCTGGGGTTACAGCCGTGTGCCACTGTGTCTGGCCCTTTT
CTTTTTCATAGGAGAAGGGTTGTTGACTCCAGGAAACGTCACCTGGAACCAAGAATGTG
AACTCAAGGACCCCCGCCTGTTGGCAGCTGCATTTACTTGACTCCTGTTCACTGTTTCTT
AGCCTTGTCCTTCTCTCCTGCCAGTCTAGGGGACACTGCTTCTCCTGGTTGACCTCAT
CAATGCC

Sequence 2455

CCGCGGTGGCGGCCGAGGTTTCAAGGACCAGCCTGGCCAACATGGTGAAACCCCATCTCT
ACTAAAAATATAAAATCAGCCGGGCATGGTGGCATGTGCCTGTAATCCAGCTACTCAG
GAGTCTGAGGAGGAGAATCACTTGAACCTGGAGGCAGAGGTTGCAGTGAGTCGAGGTTGC
GCTACTGCACTCCAGCCTGGACAACAGAGGGAGACTCTGTCTCAAAAAAAAAAACCTA
CAGCTGTTCAAGGACCAGCTGACAGGTCAAGTGTGGCCTTTTCTGGTCTTTGAACACATC
ATAGAAAGTGACAAATGCTGCAAAGCCATGAAGAACATGAACTATAAACGGGTAGACTAA
CTGCCAGCTTAGACACTTATCTATGCCACAAAACAGCTGAATTTGTCACATTTATATAT
TGCAATAT

Sequence 2456

AGGTCTTCGACCCACGCGTCCGGTGGCTTATGCCTGTAATCCAGCACTTTGGGAGGCCG

TABLE 1

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AGGCAGGCGGATCACAAGGTCAAGAGATGGAGACCATCCTGGCCAACGTGGTGAAACCCC
ATCTCTACTAAAAATACAAAAAGTAGCTGGGCGTGGTGGCACACGCCTGTAGTCCCGGCT
ACTCGGGAGGCTAAGGCAGGAGAATCGCTTGAACCTGGGAGGCGGAGGTTGCAGTGAGCG
GAGACCACGTGCTGCACTCCAGCCTGGTTGACAGACCGAGACTTCTTTTCAAAAAA
AAAAAAAAGTGCGACCTGCCTNGGCGGNCGGTTTAAAAATNGTGGATTNCCCCGGG
CTGNAGGAATTTTCGATNTTCAAAGCTTTATTNNATTACCGTNCGACCTTTNGGGGGGGG
GCCCCGGTACCCCAACTTTTTT

Sequence 2457

CTATACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGA
CCCACGCGTGCGCAATTTTAGGCCCACAAGGAGTCAAGCACCTCAAGGAGATCTTCAGT
TTGAACTTGGTGTAGACACAGGGATACTGATGAATCAATATTCAAATTAGCTGTTACCTA
CTTAAGAAAGAGAGGAGACCTTGGGGATTCGAGGAAG

Sequence 2458

GCTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTAGAGTCGGGAT
GCACAACCTCAACCACCGACTTATCAATGCAGCCGCCTGTGTATTGCAATTGGCCGTAC
CTTAAGCACTGAGCCACCCGGGTTTAGTTCAGCCATTTCAAGAAGTATATTTAACGTCGG
TAGTTCTGCTTTATTAATAATGCAGCAGAGGTACCTGCCCGGGCGGCCGCGCCGCACTTTT
TTTTTTTTTTTTTAAATGAAATTGAGGATTTAACCAAAATGTGAGTTCTAATTAGGACA
ATAAAATTAATCCTAACTACATTTCTTATAAATACAAAAATGTGTTTTGGAAACACATC
CCACCTGGGGCGCTAAGCGATGAGAGTAAGCAATTATAATGGCTGACTCCTCCAGCTCTT
TGCTTTGAGTTGCCGTAAGAAAAA

Sequence 2459

CCGCGGTGGCGCGCTACCTGCCCGGCGGCCGCGGCCGCGGCCGAGGTCTTCGACCCACG
CGTCCGAACCTAATTGGCTTTTTAGAAACACCCACAAAAAGCTCAGAAATTGGCTTTAAAA
AAACAACCACCAAAAAAATCAATTGGCTAAAAAAAAAAAAAAAAAAAAAGTGGGCCGC
TCACCT

Sequence 2460

ACTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCGGCCGAGGTCTTCGACC
CACGCGTCCGGACAGCTCGTGTCCACAGGGGTCTGTTGGGCTCTTGTCTGCTAGGATTCTG
GAGTTTCATGGTAAGAGCGGGCCACTCCCCACCTATTCAACTACCCCTTCCCCAGGAGT
TAATGGGGGCTAGTAAGGAATGCTAGTGCTTGAAGCCCTGTGCAGGCTTCTGAGATTCC
TGCCCCCTCAGCCCATGCTCTGCATCCTCCCTTCATCCACCCTCAATGTTTTCTTCAA
AGATCTGCTCAGAGTGTCAGTCTTCCCAAATTCCTGGTCTCTCCATGAGAGATGTTCT
TCCTGGCTGCTTCTAGTTGGCCATCTGGTCTTGAGTCTTGTACCTCGGCC

Sequence 2461

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTTTTT
TTTTTTGGGTTTCTTTGAAAGNTTATTGNTTCTTTAAAAAAAAAAAAACCTATACCT
TTTATATTTACATTACCTNTCANAATATTTAATGGNACCTGCCCG

Sequence 2462

ACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGAGCAGGAT
TACCATGGCAACAACACATCATCAGTAGGGTAAACTAACCTGTCTCACGACGGNCTAAA
CCAGTAGAAACAAAGT

Sequence 2463

ACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAAAGTTA
TTTTAGTCATGAAATTTTATATGCAGAGAGAAAAAGTTACCGAGACAGAAAACAATCTA
AGTCGA

Sequence 2464

CTACTTAGGGCGAATTGGAGCTCCCCGCGGNGGCGGCCGAGGTTTCAAGACCAGCCTGGC
CAACATGGTGAAACCCCATCTCTACTAAAAATATAAAAAATCAGCCGGGCATGGTGGCATG
TGCCTGTAATCCAGCTACTCAGGAGTCTGAGGAGGAGAATCACTTGAACCTGGAGGCAG
AGGTTGCAGTGAGTCGAGGTTGCGCTACTGCACTCCAGCCTGGACAACAGAGGGAGACTC

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TGTCTCAAAAAAAAAAACCTACAGCTGTTCAAGGACCAGCTGACAGGTCAAGTGTGGC
CTTTCTGGTCTTTGAACACATCATAGAAAGTGNCAATGCTGCAAAGCCATNAAGAACA
TGAACTATAAACGGGT

Sequence 2465

CCGCGGTGGCGGCCGAGGTACAAGATAGGTATGGATTCCAGNCTGGAGAAACCCNTAAAC
CACTACACCCTGCCTCANAGNAGGGNAGAATTNTCAGTATGTATGTGGAGACAGGCTCGG
ACGCGTGGGTCTGAAGACCTGCCCGNN

Sequence 2466

CCGCGGTGGCGGCCGAGGTCTGATTACAAAAATTTAAAAAATATGCAACTTCAGGCATAA
AGGGTTAAGGGGCAGATCTTCACAACTCCACACAAGCCAGCAAGCACAGCACCTGCCCCG

Sequence 2467

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTT
TTTTAACCTTTCCTTATGAGCATGCCTGTGTTGGGTTGACAGNGAGGGTAATAATGGCTT
GTTGGTTGATTGTAGCGGACGCGTGGGTNGAAGCTTGACCTNGGCCGCTCTAGAAGTAGT

Sequence 2468

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGCTTGTACAGTATGTGAAGAAGTTGCAC
CTCATGAGCTGATCACTGATCAAGTTAAAAACACCAGACATACATTATACGTCTAATAAA
TTTCCTTCAGGTCATGACCAGCATGAAAAATNAGACACAGACACTCAGCAACCATTCTG
TAAATGTGTACCT

Sequence 2469

CTACTTAGGGCGATTGGNNCCTCNCNGNGGGGGCGGCCGAGGGCCTGATCTAACTGCTGC
CAAGACATGCCAAGGTCACCAGCTTCCCGTCCTGACCAACAGCCACCTCTCAGAAGGCTG
GCTTAACTACTCANCCCCAGTCTTNTTAGCAGATGGCAAGGAGCTCTGGCCAAGATTTTA
GTCTAAACAGAACCCCTAGGCTGCTGATGCAACATCAAGCAC

Sequence 2470

[illegible]

Sequence 2471

TACTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGAGGTGCGGCCGGCCGCCCGN
CAGGGTCACGCGTCCGGCCTGCTGCTTTGGACATGATGCTGACTGGTAGAAGCATTCTGTG
CAGACAGGGCAAAGAAAATGGGACTGGTTGACCAACTGGTGAACCCCTGGGACCAGGAC
TAAACCTNCAGAGGAACGGACAATAGAATACCTAGAAGAAGTTGCAATTACTTTTGCCA
AAGGACTAGCTGATAAGAAGATCTTTTCCAAAGAGAAGACAAGGGTTTGGTGGGAAAAAT
TGNANAGGGGTTNTTGCNNTNACTTTTTCAATTTGTTAGGGCAACAAGGTTTTCCNAN
AAAAAAAAAAAAAA

Sequence 2472

CTACTTAGGGCGAATTGGANCTCNCNCCGGGCGGGCGGCCGAGNACTTACACNCNNGCN
ATCGNTTTCNTGNCNGCAGNNGGATNCACTAGTTNTAGCTTCGGNCGCCACCGNANCCNN
CNNGAGCATGCATGGAACACATATACCAAAACATCTTTCTGATAACATTAAACATTTTTAA
AAGATGTTAAATGTTCTTTTCATTGTGGTGCTTCAGATTCTGATTCTAGAACTTGTGTG
TGTGGAACCTGTGTGCTAACTATTTCTGTTGGAATTTACCAGCAAAGAATTATCTAAGAAT
TTTCAAACAAATGATGGGGGGAAGGAACTA

TABLE 1

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Sequence 2473

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGGGTTTCTCTTT
GAAAGNTTATTGNTTCTTTAAAAAATAAACCTATACCTTTTATATTTTACATTCA
CCTCTCANAATATTTAATGGTACCTGCCCCG

Sequence 2474

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGATCCTCTTCTGCTGTTCTG
GAAAGAAACAGACCAGTGGTATGGAGTATAAGAAACTGATGCACCTCAACCGGATGTGA
AGGAAGAGGAAGAAGAGAAGGAAGGAAAAGGACAAGGGAGATGAGGAGGAGGAAGGAG
AAGAGAAACTTGAAGAGAATCATGCTGTTGCATTTAGAACTTTCTGCTTTGCACAGGAAA
GAGTCACACAATTAATCAACATGTATATTTCTCTATACATAGAGCTCTATTTCTCTACG
GTTTTATAAAAGCCTTGGGTTCCAACAGGCAGTAGATGTGCTTCTGAACCGCANGGAGC
AAACACTGAAATAAAATAGTTTAT

Sequence 2475

CGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTNNGTATTTN
AGNANAGATGAGGTTTACCATTGTTGACCAGGCTGGTCTCGAACTCCTGACCTCAGGTGA
TCCACCCACCTCAGCCTCCCAAATGCTGGGATTACAGCGTGAGCCACCANGCCCGGCCA
ATTTTGTAACTTTTACAAAGATATTTAATTTAAATTTGATTTAATAAAAGGTAGACAT
CCAAAACACAGGATGATGAATGCACCTCAATGTTAGGGGAATATC

Sequence 2476

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTTACTTTAAACAAAAAA
TGTTTACTTNTAAGGATATACGCACAAAGGGAACATAATATACAGATAAATGAGAAGTTT
CGATTCTGCATCAAGCATTATTCAATCGGACGCGTGGGTGGAAGCTTGTAACCTGCCCCG
GGCGGCCGCTCGAGGCCGCACTTTTTTTTTTTTTTTTTTTGAGACGGAGTCTCGCTCTGT
CACCCAGGCTGGAGTGCAGNNGCGCAATCTNNGCTCACTGCAACCTCCACCTCCAGGTT
CAAGTGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTACAG

Sequence 2477

CTAACTATAGGGCGANTGGANCTCNACCGCGNNGGCGGCCGNGGNCAAGGCTTCGACC
CACGCGTCCGNAAAAATTANCCAGGTGTGGTGGCACACTCCTGTAATCCCAGCTACTCAG
GAGGCTGAGGCAGGAGAATCGCTGAATCCAGGAGGNGGAGGTTGCAGTAAGCCGAGAAC
CTACTGCACTCTGGCCTGGGCGACAGAGCAAGACTGTCTTGGGAAAAAAAAAAAAAAAAA
AGTGC GGCCGNCCGNCCGGGCAGGTCCTAGCTTGAGTCGACCCACGCGGTCC

Sequence 2478

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAATTGCTAAAACAGCTCCAGG
GNAAGNNATCTTATTTAGCATTAGCTCCCTCACAACNTTTTTCATTCACTTNTATTGG
CCAGNCTCATACCTGAAGTATTTAAATGAGTTNACAATTATTNCACTTACCNTCAGAAA
AAAAAGGAGCAAAAACCTCTTAATGACTGGTNACATGCACATTTGGTGTAGGAAATTATT
ATGNGGTAAAATTTATATATTTCTATTTATTTTATTAATTTATTNTTACACATTATTT
CAC

Sequence 2479

ACTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTTTTTTTTTGGTTTCTCTTTGAAAGTTTATTGTTTTCTTTAAAAAATAAACCT
TATACCTTTTATATTTACATTACCTNTNAAAATATTTAATGGTACCTGCCCCG

Sequence 2480

ACTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACG
CGTCCGTGGTGAACACAGAGAAGACAGGTCTTGATATATTCCTCTGTATTCTGGGGAGC
TTTGACCTTGAGCTTTGTACCTGCCCCG

Sequence 2481

CCGGGCAGGTCTACTCAAGTAGTCTTTACCCCTACTCAAGTAGGGGGTAAAGTGTAGAA
CAAGGAGTTTGATCTGTGTTCAACTGATTGTGAACCATCAATTGAGATAACTCACTACCT
TCAAGGCCAGCCAGNTACATACTTTTGNAAAAGCCAAGAGTGGAANCAGGGTTGGTTT
TAATCCAATTTTGGGC

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Sequence 2482

AGGNCGACNTTNTCACAGGCAGNNAACCGGCCAGNTNAAAACACTATGCTANCTCGCGG
GGCCANTNTTAGGATGGGTGAGGCAGATGAANCCATTCTCCNANTGGCCAAGGCCGAGGG
CATCAGCCTCAAAGAACNTTGGACNGGAGAGAATCACANACGTGNNNTATTGTCATAAA
NAAANAATGAAAAACCNACC

Sequence 2483

AGGTATTGACCCACGCGTCCGTAGTTTTATCTTTGACCAACCGAACATGACCAAAAAC
CAAAAGTGCATTCAACCTTACCAAAAAAAAAAAAAAAAAAAAAAAAAAGTGCGGCCGCGCC
GCCCCGGCAGGTACCAGTAGCAACATATGAGATTTCTCTAGATAACTTTTTTTTGACAA
GGTCTCACTCTGTTGCCAGGCTGGAGTGCAATGGTGCAATCTTGGCTCACTGCAGCCTT
GACCTTCCCTAGCTCAGCTGAACCTCCCATCTCAGGACACCATTGCCTCCACTGCCCATC
CTGCATCTGCCTGCCTACCCCAAAAGT

Sequence 2484

AGGTACATTTTCACTCCTGCTCTAAAACCTGCCTCAGTCTCTCACTGTGCCTTATGCCCC
TCAGCTGAATTTCTTCTGAGCAGGCAGGAATTGAGGTTGCTGCAGACGTGTATGCAT
TTGCCACCAGTAACATACTTGGTGCCACATGACTAGGATATGTTCTCTAGTGCTAACATG
TTCGTTTACAGTTCTTAGGACTCCCTGATAGAAAAAACACAAAAAACACAAAAAA
CCCAACCAACCAACAAACAAACAAAAAACACAGGAGTTTCTCCAAAAAGAAGTCT
GCAGTGTCTTTTCTGTTTTCTCTGAAGGTATCCAGGGTGTTAGAT

Sequence 2485

AATGTTGCAGGCTACTCTCTGCCGACCAGGCCGCGCCCGTCCCTCGTGACTACAGCAGG
TACCTGCCCGGANGNNNNNANGNAACGNATGTTTCCACCTNCTTCTCCAACCTCTACCC
CACCATTAGTNGTATNTTNACTNTNAAAACAGTGGAACCACAGCCCTAAAGACCTGCTNA
TNAAAGTNCCTTTGTCTTAATTGTATTTAAAAA

Sequence 2486

GGGGAAAAACCCAGCTCCACCGCGGNGGCGGCCGCGCCCGGCTTTTCAAGCNTCGACCNACC
CGTCCGATAATTTATACTAAATTTAGTAAAANGGACTTNTTATTCAAAGCATCAATAATT
AAAAGAATTATTTTAAAAAAGGGACCT

Sequence 2487

AGGTACCCTCACTTGGTCATCTATCCTGAAATAAGGCTTAGTTAGTATTGGCCTGAATG
TTTTGTGTTTTTTTTTTTTTTTTTTTTTTTACTGTTACTTTGAAAAATATGTATG
TATACCTTATCATATCTGCCTATATCACTTACTTTGGGGAGATACTCAGAGCTTTGTGGT
TATCAGTATACTAAAAAAGTGCGGCCACCTGCCCG

Sequence 2488

AGGTACGCGGGGGAGCCTGTCCAGCTGGCCCGGGCCCTGGCCTGGTTCTCAAGTGTTTCC
TAGACAGAGAGGCACCTGGGTGAGTATTAGTCTATTTATCAGAGGTGTAAATAATCTATG
TATAAGTTTTTCTCCTTTTAGATTATTTTGTATTTGTTTAAAAGAAGTTTTGTCAAATA
CAAAATATAAAGAAATGACTGAAAGTTGTTGACAGGGTTTTTAAGAAATAANTTATTCT
AATTGTTTTTGTGTTGGTTTGTGCTTGTAACTAGCGCCAAGGAAC

Sequence 2489

CGGGCAGGTACGATGGGAGGACAGCTTTGTAGAAAGGACATTATNCAGCTNATAGCAAAC
TTTGTGGATCCCAATCCGAGATTTNCCTGCTGAAAGACAAGAAGTNTCTNAAATAAAGN
GCTGTANCAGNATTTGTATACTCCAGAATAAGNTTCTGTGATTCTTANCTGCCAATGTGT
TCAAGGCGTGATGACTNGGTNTCTGTTTCTNTGAACATNAATACTAGGGTCTGTATAAAT
TTCAATGCATGCCACCAGCTNATCAACCTTTTGGCTTTGATTTTTGNATGNNGNATTNT
TATTCCTTANGANTTCCGGCCAAGTACCTTTGGNCGCCACCGTGTTGGGAGCTCCAATT
TCGCCCTTATAAGTGAAGTCCGNAAATTACGCGCCGCTCANTTGGNNCGGTNAGTTTTT
ACAACGCCNGANGACCTGGGGAAAAACCTTGNCCGTTACCCCAACTT

Sequence 2490

GNCGGGCAGGACGCGGGACCAGAATGCAGTTCCAGCTTAGGAAGCCACAAACAAGCCACC
CAGGAGGAACAAACACCGNAGCGTGGATTTTCAAATTTCCCCCGGGAAAGTAAGTCTC

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GCTTCCTGCCAAANAA

Sequence 2491

CGGGCAGGTNCCTTGCTAAGTTCAGACCTTCTCTTCCTTNCCTTCCTTCCTCTCCTGC
CCATTTTCCTGTTCTTCTGTCCCTCAATACTTCTGNAGCTTCCCATTCATGTTCTCTTCT
CCCACGCAGGCCNCATTGTGTGCAAAAAGTGNNGNGGGGGCTGTGCTGNACTCNTNCCTG
CCTCCTGCCTCCTGCGGCTGTTGGATTTGGGAATGACCTTTGGTGAGAGNCTCACTGCTC
CAGGGTCTATTTTTTGGTCCAAAGGCTAGAACCTATANAAGTNGGGAATCACCTNTTTTT
TCTTTTTCNNGGGTGAAAATAAAATGGGTTTTTTTCAANTTCNAACAAAAANAAAAA

Sequence 2492

AGGTACAGAGAAGTGAATTTACACAATAAAGTGTTACCCTATACCAGTGATTCTAAAATT
TTGGTCTGGGGAACCTTTCATGGGGTTCATGAGGTCAAACTATTTTCATGATAATGTTA
TTTTGCCTGTTATATTCTCATTCTCGAGTATACAGTAGAGTTTTCCAGAGGCCACATGAT
CCATGACATCACAAACAAATGAATAGAGACAGATGAAAATCTAGCTGGCTTCTGCTACAT
GAATCAGACATTAAGGGGTCCAGAGACCATAAAGTGTTGACAACCACCACTCTTCACAACC
TATATATAATATCTCAAAATAATGTTAATTCTCTATCCTCAAAGTTTATTTCTTATATC
TACATTTTCTATGATCAACACACTCACTACAAAA

Sequence 2493

CCGGGCAGGTACCACAAAAACAGTTACATGGTAGAGTTCCAATCACACAGAAAGGAATCC
ATTCAGCAAATTTCCAAAGTTCAGACTGTTTGGGCCACCCAGAATTCCACCAGGACTG
GACGGCCCCCACCAGGCTATACTGGATATGTGGACACAGAGCTTATGCTAAGCTGCCTGA
TCAGGACAGGTAGCTGTATAATTGGCACCATTAAAGCCATCTTTCTTCTTACTGCCCATAA
AAACAGGTGAAGTTCTAGGCTTCCAGTCTATGCTTCCTGCAAAAAATGAAGCATAGCCA
TAAGTGATTAGAAAAATAATGAATGGCCCTCTGAAAGAATCATACAATACTATAGACCCG
CCACTTAGGCACAAGAAGGCTCATGAGGATATC

Sequence 2494

AGGTACCTTGGGATTGCAGGTGCCACCCTTGCGCCTGGCTAATTTTTGTATTTTAGTA
NAGACGGGGTTTTTGTATGTTGTCCAGGCTGGTCTCGAAGTCGAGCTCAGGTGATCCGCC
CATCTCAGCCTTCCAAATGCTGGGATTACAGGTGTGTGCCACCATGCCAGCCAAACACA
CACATTTATTTAATGCAAGTTTTACCTAGCACAGAGAAGCAGTGAGAGTCAGTTACTTAT
ATATTGAATTGGACCAAGTAAGTTGTGAAGAAGCTAGTAAATATATGGAGGCTAAAAAGC
TGAGTGGTTCTGTTCTAACAAGGTCTGCACAGTAATCTCTTGGCCTCGACTTCTCATCCT
TAAAAATAAGGAGATCGTCCTATGTTTC

Sequence 2495

NNGGGGGGGGGGGGGCCCCCCCCNNGGNNNAAAAAAAAAANATTTTTTTTTNTNTTTTT
TTTTTNAAAAAAAAAAAAAAAAAANNGGGGGGGGGGGGGGNGGGGNGGGTCTTTTTTTN
AAAAAAAAAAAAAAAAAAAAACCCCCCCCCCTNNNTTTTTTTTTTTTTNTNTATNAA
AANNGGGGGGGGGGNNNNNNNNNNNNNNNANATNTNTTTTTNNNNNGGNGGGGGGGGGGG

Sequence 2496

TGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACAGCGGGGGCGGAGGTCANGGG
ACAAGATGGTGCCACCGGTGCAGGTCTCTCCGCTCATCAAGCT

Sequence 2497

GGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACAGCGTGGAAGGGTTTANGGCAG
CAGTGTCTGATTCTTTGCGGGACGGCGAGCGCATTTGTGCTTGGCCGCCGCGGCCTAG
GAGGCCTTTTGAGGCCGCGTAGTCGGTGTGTTTGAAGTACTCTACAGCTTCTGGCAGGC
CGTGCGCGCCCTGACCCGGCCTCACCATGTTGGTGCTGTTTGAAACGTCTGTGGGTAC
GCCATCTTTAAGGTTCTAAATGAGAAGAACTTCAAGAGGTTGATAGTTTATGGAAAGAA
TTTGAAGTCCAGAGAAAGCAAAAAAAAAAAAAAAAAANANAGTACCTGCCCG

Sequence 2498

AGCTCNCCGCGGTGGCGGCCGNGGACNAGGGNCTGANTGTCTGNGTNTCAGAATGGGATN
AGTGNCCTTATAATGAGGGAGCTNGNTTGTCCCTNCCACNACATGAGGTTACAGCAAAA

TABLE 1

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AGATGGCTGTCTATNAACCAGCAAGTTNGCCTTTGNCANACCCCAGATCTGCANACTACC
TTGATNTTGGACTTTNCATCCTGCACAAATCTAAGANANAAATTACTGNTGTTTATCAAC
CACTCNGTTNATGGTNTTNTTCGTTATAGCAGCCTGAACTAAGACAACAGGTNGATCTTA
AGGCATNGCTACNATNAAGTCTTTCNTGCTCAGAATCTCC

Sequence 2499

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGGAANTGGATGACTT
TTCTTGTCATATCACCATGGAAATCTGTGTGCTGGGCATGGAGAGTGNGAAGCANGCAG
ATGCCAATGCTTCAGTGGCTGGGAAGGTGATCGATGCCAGTGCCCTTCAGCAGCNGCCCA
GNACTGTGTCAATNCAAAGGGCCAAGTGTGCAGNGGAAGAGGCACCTTGTGTGTGTGGAAG
GTGTGAGTGCACCGATNCCAGGAGCAT

Sequence 2500

TGGAGCTCNCCGCGGTGGCGGCCGAGGTACTATATGTCTGAATGTCTGTGTCTCAGAATG
GGATTAGTGACCTTATAAATGAGGGAGCTTGTGTGCCCTTCCACTACATGAGGTTACAG
CAAAAAGATGGCTGTCTATGAACCAGCAAGTAGGCCTTGGCAGACCCCAAATCTGCAGA
CTACCTTGATCTTGGACTTTCATCCTGCACAAATCTAAGAAATAAATTACTGTTGTTA
TCAACCACTCAGTTTATGGTATTTTTGTTATAGCAGCCTGAACTAAGACAACAGGTAGAT
CTTAAGGCATAGCTACAATTAAGTCTTTCATGCTCAGAATCTCCATCTGCTGGCCAAGC
ATAGTGGTTTCGCACTTGTAATCCTGGCACTTTGGGAGGCCAAGGGCGGGTGGGTACCTG
AGGTCAGGAGTTTGAGACCAGCTTGGCTAACATGGCAAACTCTGTCTCTACTAAAAATA
CAAAAATTAGCCGGGTGTGGCGGNGGGTGCCTGTAATCCAGC

Sequence 2501

NTGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCCGCGGCCATTNTTCTTTCTTT
TTTTTTTNGCGGATGGGGACTTGTGAATNTTCTAAAGGCGCTATTTAACATGGGAG

Sequence 2502

AGGGGCGAAATTGGGAGCCTCCACCGCGGTGGGCCGGGCCCGAGGTACTTTTCTTTTTTT
TTTTGNTGGATGGGGACTTGGNGAATTTTTTCTAAAAGGGGGCTATTTNAACATGGGGA
AGGANAAGCGTTGTGCCGGTTTCCA

Sequence 2503

CCGGGCAATCTAAGAAGACATGATCACTAAATGTGATGTGGGATCCCAGATGGGATCCTG
GACCAGGTAAAACTAAAGTAATGTTTCACTTCAGTAAATAATAATGTATCAATATTGG
TCCATTAATTGTGGCAAATGTGCCACACTAATGCAAAGCGTTAGTAACAGGGAAAAGTGG
GAGCAGGGTATATGAGAACTTTTTGAAGTGTTCACAATTCTCCTGTAAATCTAAACT
CTTCTGAAATAGAGTTTATTCTTTAAAGTGTCTGGAGGATGTGCACAAGGGTGTGGCA
GCAGAGGGGCTACAGGTAAAAATCATGACATCTGGAATATTTCTTCAATTTTTGCTCC
ACACGGTGACTATCTTACCCTGCTCCC

Sequence 2504

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGGTACCCGGGGGGTCTGAGG
ACCCGAGGTTCGTAGGTGGATCTTTTTACGGAGCAAAGAGCAGGAGGACAGGGGATTGAT
CTCCCAAGGGAGGTCCCCCGATCCGAGTCACAGCACCAAATTTTCATGCGCATCTGTGTA
AAGAGACCAACAAGCAGGCTTTGTGTGAGCAGCAAGGCTGTTTATTTACCTGGGTGCAG
GCGGGCTGAGTCTGAAAAGAGAGTCAGTGAAGGAAGATGGGGTGGGGCCGTTTTGTAAGA
TTTGGGTAGGTAAAGGAAAATTACAGTCAAAGGGGGGTTGTTCTCTGGCAGGAGTGGGGG
TCACAAGGTGCTCAGTAGGGGAGCTTTGAGCCAGGATGAGCCAGGAGAAGGAATTTAC
AAGATAATGTCATCAGTTAAGGCAAGAACAGGCCATTTTCATTT

Sequence 2505

CCGCGGTGGCGGCCGCCCGGGCAGGTACTAACAAATGCAGTAGCCAACAAGATTACCATG
CAATCATTAAGGAGAACCAGTAAGAGAGCCACTCAAACCAGATTTTGAACGCTACTAA
AATTAAGTAGTTCTTTGATGAATATGAATGAGTAGGGAAAGGATTCTTTGTAATAGTA
TACCTCTGTGGTAAGAGAAGGGTGGTATGTGAGTTTTAGTCTACAGATTATGGCAAATTC
AGTGACAACAATCAAATGGTCTAAGATTGACAGTAGCACAGTTTTACTCTGTGAAGGTAA
TGTTCAGGACAAATTTCAAGAAAAGTAAAGAACCATTTTACAGCTGAAATCTTCCCT

TABLE 1

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AACCATTGTTATTTCCACTTTTAAGTCCTCAAGAGATGAGAAAAGGGAGGTAAGGCTTCC
TTATACATTTCTGCACAATGAAACATTTTTCTCCTCCAGGCAAAAGATTCAAGCAGAA
CTGGCAAATATCTTATCTTGCTCTTCTTAATAATATAATGGTGGTAGGATATAAAGGTCT
ATACAATTAACCTANAT

Sequence 2506

ACTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGNCNGGCCAGGTACACNTTC
TTAGACCTCAACCTCGAACTNTCAAAATTNAGGATGTCTCANCCCTACTGAGGCCGGGAG
TCACCTNNACACTGANGGCCCTNGGTGNGAAGATGAACCTTNCACCGTCTNTANTGCATT
CTGGAGTGCAAAAATAAAATCCACTNAAGAGTCACAAGGCCCGCTGTGCATAATNGGNTT
CACTTTTACCTTTTTT

Sequence 2507

CCGCGGTGGCGGCCGGCGGGCAGGTACATGTAATGCTCCTGAACTGTATGCTTCGCACG
GCTGACATGCTAAGNTTGTCTGTGTATTTTATGACTATTTTTAAAAAGTAAACAAAA
AAGAATTAGCTGAAAATACCAGCACAGGCAAACCCCTGGAGACAGAAAGCAGGTGAGTGG
NTGCTGGGGCTTGAGCAGGAGGAAGGGCGAGGGACTGCANAATGGCCATGGGCTTTGCCT
TCTAGCATGATGAGAATGTTCTGGAATTAGACAGTGGTAACGCTTGTTCAACACTGCCAG
TGTAATTAATGCTCACTGAATTATACACTTTAAATGGCTAACATGACCAATTTTATGTTAT
ATATATTTTACTACCACAAAAAACTANCTGGCACCTAAAAACATTCCATTGAACAGGCC
CCTTCAGATCTGTGCTTTTCTGCATGCAAATTACNCCACAGAGCAAGCACCTATGGCAN
CGTGGATCACAGGCTCTGTTTTANGATAGANAAAGGACACAAGGNGTCCCCC

Sequence 2508

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCTTTTCTTTACTTTT
TTTTTTTTTGAGACGGAGNCTCACTCTGTGCGCAGGCTGGCGCGATCTTGGCTCACTGCA
ACCTCTGCCTCAGGGTTCAAGCGATTTTCTGCTTCAGCCTCCTGAGTAGCTGGGACTA
CAGGCACACGCCACCATGCCAGCTCATTTTTGTATTTTTAGTGGAGATGGGGTTTCACC
ATGTTGGCCAGGATGGCCTCCATCTNTTGACCTTGATCCGCCGACTCGGCCTNCCAA
AATGCTGGGATTACAGGCGTGAGCCATCAAGTCTGGCGAGAGAGATTGTTTCTAGATGAG
GGNGGGGGCCGGNTGTCTTANCCCAAAGCTTGTCAGGCTCTCTATCAGAAATAAATGCC
CCCAAAACCAAAAAAAAAAAAAAAAAAATAAGGTACCT

Sequence 2509

GCCGGGCAGGTACTACNTCAGCAATTTCTCCANNGNCGNNGNCGACAGCATATGGCACCA
GCCCATTTTCAATTTGCTGAGCATCGGCCAAAGCCTGTATGCGAAAGCCAAGGAGCTGGA
CAGAGTGAAGGAAATTCAGGAGCAGCTCTTCCATATCAAGAAGCTGTTGAAGACCTGTAG
GTTTGCTAACAGNGCATTAAAGGAGTTCGAGCAGGTGCCGGGACACTTGACTGATGAGCT
CCACCTGTTCTCCCTTGAGGACCTGGTCAGGATCAAGAAAGGGCTGCTGGCACCCCTTACT
CAAGGACATTCTGAAAGCTTCCCTTGACATGTGGCTGGCTGTGAGCTGTGTCAAGGAAA
GGGCTTTATTTGTG

Sequence 2510

CCGGGCAGGTACAATTGNTTGAAGATANTTTGTTTTTCTCTTTCAGTTTCNCATATT
ACTAAAGACAAATCATGGTAGGATTGGNTTGTATTATACTTGGCCTAACTATTTGTAT
ACAATGCAGCAAGAATGATTATTTTTACTTAGGCTTTAAGTAGGCTCTGATGGAACCTT
TGTTCCATAGCAGGAATCTCAGATAAGACTTTGTAACCCGTAAACTCANCCGAGCCA
TGGATTTATGCCATTAAATACCCATGAGTTGGGTGAAATTTCTTNTCCTTNGAGGGCCC
AAGATAAACCTGGGGCGTCTGCACTTGNCAAAAAGTGATATTCTTTACTTACACAG

Sequence 2511

AGGTACACNGNTNNAATCTTACTTCAACTTTNAANGGGCCACNNAACCCTCTATATCCC
CTTGTAATTTAACTGCTAGTCCACAAGAGGAACAGCTCTTTNTACACTAGGAAAAAACC
TNGTNGAGAGAGTANAAAATTTAACACCCATANTNNGCCTAAAAGCAGCCACCAATTAAG
AAAGCGTTCANGCTNAACACCCACTACCTAAANATCCCAAAAAAAAAANAAAANAAAGNAC
GCGNGGANGTGTNAAATTTNANAGAAGAATTTNTNTTGTGTTCTTTGCACGAAGGNANA
GATAAAGACACTTTTTCAAAA

TABLE 1

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Sequence 2512

CCGGGCAGGTACGCGGGGACTGAAAATNGGACTGTTCAACTCACCTGGCAGCCACTCCCA
GAGCTCCTGGAAGTCTGGCCCAAGGTTCTCTGACTGACTCCTTCTTGGCTTACTGGCTGA
AGACTGACGCTGCCTGATCGCCTCAGAAGCCCCGAGACCATCATGGACGCCGAGCTTTA
GGTAACACAGTGGAGGCCCGCCTGCACCCAGGTGAAATAAACAGCCTTGTTGCTCACA
CAAAGCCTGTTTGGTGGTCTCTTCACACAGACGCGCATGAAAGGGAAGACATACAAAAAC
AAGGCCTCTGAGGTAGGTACCT

Sequence 2513

CCGCGGTGGCGGCCGAGGTACTTNTTTTTTTTTTTTTTTGGGTTTCCGGGGTCGTNTTG
GGGGTCTCAATATTTTTGGCTCCTCTCCTTTACAGACACCTTGTATTTCAAAGTTTTTC
TTGGAGTCNAATTCCTGATCAGAAGTTTGAATGGTTGTTACTGCTGTGTTTTTCATGTCA
ACAATTTCTTTTNTTGTTCCTGACAAGGTGTCCTCTTGCAGCTGACTGTATTATTATA
GCGCTTTCTTTCTTTTCTCCTGTATTTTTTGGTATCTTNTTGAACACAANAATGCTCTG
ACACAAGCTTGAATCAAATAAGCTTGTCAATAGCTTCTTTTCGATTAGATTTAACTGC
TCCACGNGATAATACTTAAGGAACACTTTTGTGTTTTCCAAGAGCCCAGTTATCGAGACCA
GCTTTTTCCAAAATGGTGGCACAAGTGTGAGGGCTCATGCGGG

Sequence 2514

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTT
TTTTACTTTTTAACTTCTTGTTAAAAATGAAGACACAAACAAACACATTAGCCTAGGC
TTACACAGGGTCAGGATTATCAAGATGTCACTTAGGCGATTGAAATTTTTTCAGCTCCATT
ACCATCTTATGGGACCACCATCCTATAAGCAGTCTGTCATTGACCTAAACATCATTATTC
AGCACAAGCGTATTTCAAATTTAGAGTTTACTTTGATGTTCTTCTTTTTTCTTTTTCT
TTTTTTGAGACGGAGTCTCACTNTGTGCCCCAGGCTGCAGNGCAGTGGTGCAATCTCGGC
TCACTGCAACCTCCAGTTTGGGCCACAGAGCGAGACAGCGAGACTCGGTCTCAAAAAAAA
AAAGAAAAGAAAAGTACCTGCC

Sequence 2515

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAAATAAAC
TCAAAGGATAGGTTCAACACCATAATAGAGAGGACAGACAAAAAGAATCTGTGAAGTTGA
AAATTGAACAATAGGAATGACCCAATTTGAATAACAGAGATAAATGAACAGAGCCTCAGG
GAATTGTGGGAGTATAACAAAAGATCTAACACTGATGTCGTCAAAGTCCCAAAGGAGAGA
GAGGGGATGGGGCTGAAAAAGCACCTGAAGAAGTAATGGCTGGAAGCTCCCCAAATTTGG
CAAAACACATAAGCCTACAGATTCAAGAAGCTGGGTGAATCCCAAATGAGAGAAATCCCT
TCAAATTCACACAAAGACACATTATAGTCAAATTTNTGAAAACNNCANATAAAAAGAAN
TNGNCAAATNNGGTACCTGCCCC

Sequence 2516

CCGCGGTGGCGGCCGAGGTACTTTTTTCTTTTTTTTTTTTTTTTTTTTTTGGAGACGGA
GTCTCACTCTTGTCACCCAGGCTGGAGTGCAGCGGTGTGATCTTGGCTCACTGCAAGCTC
CACCTCCCAGGTTCAAGCCGTTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGACTATAGGC
GCCTGCCACCACGCACAGCTAATTTTTTGTATTTTAGTAGANACAGGTTTTACCACG
TTGGCCAGACTGGTCTCAAACTTNTAACCTCAGNGATCCACCCGCCTCAAAGNGCTGG
GATTACAGGCGTGAGCCACCGCACCCGGCCAGACTCCTTAAATGTGANAAGTAGCACT
GAGGAATGTGATCAGATTATGGCCTTGATTGGCACATGGGGTCGCTTCCACGGTTGGCC
TTCTTGTCTCCACGGCATCTTGTGCATAAGCCATTTGCCATTTAGGAGCTCAGCATGC
ACATCCCGGATTTCTGNGCTTGGGT

Sequence 2517

CCGCGGTGGCGGCCGAGGTACCTGTGACATCATAATTGCACCCTCCGACATGATATCTCT
TCCAAATGCTTGATGAAAAAGGTGGGAGGATCACTTGAGCCAGGGAGTTGAAGGCTGCAG
TGAGCCCTGTTTTGCCACCACACTCCAGCTTGGGATTGATTCCTAAAGACTCATGTTAC
GTGAGGAAGCAGCTCAGAAGAGGAAAGGAAAGGAGCCAGGCATGGCTCTTCTCAGGGAC
GCCTGACTTTCCGGGATGTGGCTATAGAATTCTCATTGGCAGAGTGGAATGCCTGAACC
CTTCACAGAGGGCTTTGTACCTGCCCC

TABLE 1

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Sequence 2518

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTGGGGCTGGAAGGGG
GGCAGAGTCTCACTCTGTTGTCTAGGCTGGAGNGCAGTGACAGAATCACCGCTCACTGCA
ACCTCTGCCTTCCAGGTTCAAGTGATTCTNGCGCCTTAGCCTCCGGAGTAGCTGGGATTA
CAAGCTAATCCCANCTAGGCGTGCGCCACCACACTCGGCTAATTTTNGTTATTTTTATTA
TAGTANAGACGGGGTTTCACCATGTTGGCCAGGCTTGTCTCAAACCTCCAGACCTCAAGTG
ATCCACCCGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGTGCGAGTATATGCTTTTAAA
GGGTATCCAATCAAGCTAACTATGGTGGAATGTCTCCAGTTCCTCTGTAATACACGT
ATCGTCCAGCCCGCTACCTGCCCCG

Sequence 2519

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTGAGA
TTANGGGAGTGGTGATGACTCTTAACAAGCATGCTGCCTTCAAGCATTTGTTTAAACAAG
CACACCTTGCACAGCCCTTAAGCCATTTAACCTGAGTTGACACAGCACATGTCTCAGGG
AGCACAGGGTTGGGGTAGGGTTACAGATTAAACAGCATCTTAAGGCAGAAGAATTTTTCT
TACAGAACAAAATGGAGTCTCCTATGTCTACTTCTTCTACACAGACACAGTAACAATCT
GATCTCTCTTGCTTTTCCCCACAACCTCAGCCTCTCAGAGTGCTGGGATTACAGGCATGA
GCCACCGCGCCCAGCCTCCCTTTTAAAGCACTTTCTGAAGTCAAGCCTGATTACAGGATTG
CAAGCCTGCAGAGAACTATGGTGGTAAAGCCTAAAAGATAGAATCCTTCCACACCTGA
GAAGGCAGGTATTTTAGAAGGAAACACCAGAATCACACTTAAGTCACTGCAAAGGCATT
CATGTTTATACATTTCTGAAGTGTCTTACTTGGAACCTTATGNNG

Sequence 2520

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGCATGGTGGCTCACGCCTGTAAT
CCCTCCACTTTGGGAGGCCAAGGCAGGTGGATCACCTGAGGTTGGGAGTTCGAGACCAGC
CTGACCAACATGGAGAAACCCGCTCTCTACTAAAAATACAAAATTAGCTAGGCNTGGCGG
CACATGCCCGTAATCCAGCTACTCCGAGGCTGAGGCAGGAGAATCACTCGAAGCTCGG
AGGCANAGGTTGNGGTGAGCTNANATCACACCATTGCACTNCAGCCTGGCCAACAAGAGT
GAACTCCATCTCAAANAAAAAAAAAAGGAAACATGAAGCCTTCTTNAATGATGATAG
TTTCTAAAGTGAATTATTTGAATCTCTTGCATGTTTTGGCTCTGTTAATCTAACTCTTG
TCTCTAAATAGATGCTGAAAGTGTAATCTAGATGACTATAACATACAGTNATTGCAAG
TGTATTCAA

Sequence 2521

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGCAGGTACTTATTCTTTTTTTTTT
TTTTTGGTTATGAAAACCTTAGGGACTAAAATTAATATAAAAATTGGCATAATGTTGGAT
TGAATCTACATTTTGGCAGAAGTTAAACATTCCCACATAATGTCAAATTATACATCATG
CAGTTCTGTTTTTTGTTTGTATTTGTTTTGTTTTGAGTCTGGCTCTGTCACCCA
GGCTGGAGTGCACTGGCGTGATCTGCAACCTCTGCCCCCGGGTTCAAGCGATTCTCCTG
CCTCAGCCTCCCGAGTAGCTGAGATTACGGGTGCGCGCCACCACACTTGGCTAATTTTTG
TATTATTAGTAGAGACGGGGTTTCAGCATGTTGGCTAGGCCGGTCTNTCCTGACCTCAGG
GTGATCAGCCACCTCGGCCTCACAAAGTGCTGGGATTACAGGCGTGAGCCACCTTGCCC
AGCCACATCATACAGTTTGAAATGAACTTTGCCACAACCAGCCTTGTGTAGCACAC
ACATATATCACTGAACCTGTTTGAATAAAAGTTTTTTTT

Sequence 2522

CCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTNGGTCAATTTGNCCTTAGTTTTTAAAAACAAAAGTGTTAACTAGAATNTAACACAGA
TCAAATCCAAACNCAGCAGTCCAGNGGAGAATCAAACTTTTCCGGCTTTATTNTNTGGG
AAAACCCCTGGTCTGTTTTATTCTTATTGGNCCAGGCCACCATNTATGATATGAAGGC
CTAAATTAGGAAAGCTAGGNGAGCTGNGCAAATTNTGGGTGTCTGANCCNCCTGTTGTTT
GGCGTGTGATGGGGGTGGAGGCCNCACAGGGGTGTTCTCGCTAGNGTTCAAATCACAAA
AACAGGGACCGTAACTAGGGGGAGGNGAGCAAAGCNCTCACCTTGGGCACAAAATTTAAG
GNGTGCCAAAAAACCCAGTAACCAAAGATAAATACTNTTTAATGCAACATTTTTAAAAA
ATCCAATTAATGTAAGGTTTTGATGGACAATGTTTCNAAAATTTTNAATAAAGG

TABLE 1
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GTTCCCCCGTACTTTTTTTTTTTTT

Sequence 2523

ACTTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGAGGTACACACATTACACTATCCC
TTATCAAATATACTGAATGTAAGTAGGCTGGGTGCAGTGGCTCATGCCTGTAATTTTCAGC
AACTTGGGAGGCCAAGGTGGGTGGATCACCTGAGGTGGGGAGTTGGAGACCAGCCTGGCC
AACATGGTGAAACCCCATCTCTACTAAAAATACAAAAATTAGCCAGGCGTGGTGGCACAC
GCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGAGAACTGCTTGAACTCGGGAGGTA
GAGGTTGCAATGAGCTGAGACTGCACCACCGCACTCCACCCTGGGTGACAGAGCAAGACG
ACGTCTCAAAAAAAAAAAGTAATTAAGCTTGTTTCGATTACTTAGGCTCATCAATAGT
AAGATCAACATGGTACCTGCCCC

Sequence 2524

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGNCCGGGTCTTTGTCTNAAAACGT
TAGATCTGGGCTCTGATTCTTAAGTCCACTCGTGATCACAGAGGTGCAGAGAGTCATTA
GCCATTGTTGCACTTCCATTGTTGCAAGCCCCCTCACCTTCTGGTTGAAGTGACTTTTCAGG
AGAATTAAGAGCTGGNGTTTCCCTCCCCACTCCCATTCATTTTTCTCATTTTCCCTT
TTGGGAGCCAGACATAAACACAATTGCNTATATGAGAGAAATCAGAAAGTCATGGCACAG
CCTAGGGGATGGTGCAGGCTCAGAAAAGACCTCTGAGAAGACCTTAGATTTATACTTCAG
ACTCATCTTAGGCAAAGAGGGCTTACAACAATCAAAAAACAAAAATAATAAAAAACAGTA
ACAAAAACAGCAAACCCCTGNAGAAGAGGAAGAATCTGATTTCCAGAGTTAACACATTAGT
AAATTCTAATGTCTGGTTTTCAACAAAAATATCACAAAGGGATTACCAGAGAAACAGGGA
AAGTGTAACCCCATTCAAATTGAAACCTAAAGAGACTTAANAAACAANAGGGATTTAAAG
GTCAGAAAAATTTTTTA

Sequence 2525

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGGAAGGTCACGGGCTT
GAGTCGTAGCCAGGGATAGNATTATGGGTGAGAATAGACAGGATGGAGGACACGAGGCCA
CAAAGCCCCACAATCCCAGGGCCACAGCGCCAGAGGCCTAGTTTGTCCAGAGGAATGAAG
AGATCACAGGCATTTCTGACCACGTNTAGCANAAGTGGGGGATGACCTNTAAGGGCTCGA
GCCAGGAGCNTGACTTGCAGCCCNAGTTTCAGAGCCAGTTGGGGCANACCTCCTCCTGGA
GTCTGGTCCCCCAAGTCCCCCAGTTTTNATTTCTCNTGGGACTCNTCTTCAAAANCNT
TTAATNCNCCGNTTNNANGNAAANNATTTTGGTTCATTNATANGNCNANTTTNTNAACCT
TNCNGGTTAAATTNATNANTNNGGAAAAACNAATTGNACCNCCCNNGCANNAGCNGACCC
CCNGCCCGTACNTTTTTTTTTTTTTTTTT

Sequence 2526

CCGGGCAGGTACGCGGGGCTTCTGTTGGGCGTTTCTGCTGAGAGGCGGGAGGCGCCGAGA
GTCTGTGCGAAGGTCCGTGGACAGACTGCTTTGCCTGTTGTTGCTCTTCGAGGCGGGCGA
TCCCCGAAGGCGAGCTGAAATACGGCTGCAGGCTACAATTTGCAGCCGACCATTATGGAT
GACAAGGAGCCGAAGAGGTGGCCCACCCTCAGGGACCGCTTGTGCTCGGATGGCTTCTTA
TTTCCCCAATACCCCATTAACCGTATCATCTGAAGGGGATCCACAGAGTTGTCTTCTAT
CGTGATCTGGAGGAACTGAAGTTCGTTCTGCTCACCGCCTTATGACATCAATAAGAGAGA
CAGGAAGGAAAGGACCGCCCTACATTTGGCCTGTGCCACTGGCCAACCGG

Sequence 2527

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCAAGAAGTAAGTGGA
CACCTTTCCCTGTCATAGTTATTTTCATCCAGACATCTGGTGGAAGCATCAGATTCGGAC
AAACAAGGATTTATGTCAGGATCTCTCAGCCTCTGTGTTACCGAGGGCATTCTAACAGTC
TTCTTACTCCGGCCTCCGCTTCGCCAGCACCCAGGCCGTCTCCAGCTCCAAACACCCCCG
CGTACCTGCCCC

Sequence 2528

ACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTT
TTTTTTTTTTTTTTNGGAANGGAGTCTCGCTCTGTCAACCAGGCTGGAGTCCAGNNGGCAG
ATCTCGACTCACTGCAACCTCCACCTCCCGGGTTCAAGCTATTCTCCTGCCTCAGCCTCC
CGAGTAGCTGGGACTACAAGGGATCTGCCACCACNCCCGGCTAATTTTTGTAATTTTAGT

TABLE 1
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AGAGACGGACTTTCACCATATTGGCCAGGCTGGTCTTGAACCTCTGACCTTGNGATCCAC
CCACCTTGGCCTCCCAAAGNGTTGGGATTACAGGCGTGAGCCACCGCGCCCGGCTTACTA
CAAGTCATAAGTTTCTTAAAGGCAATGTAAACTCCGAAAACCTTAATGCACTCTTATATTG
NTAATACATTAATAATCCACTGGCCTGGCTTACACTTTTGAATCAATCTTTGAGCCATGCA
TGATTTTGTAAACATTACGTACCTGCCCCGGCGGGCCGNTTNTAAAACTAGNGGATCCCC
CGGCTGNAGGAATTCAATTTAAAGCTTTATCGATCCCGCNCCTCGANGGGGGGGNCCC
G

Sequence 2529

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTGTTTTATTTTTATTTATGTTGGCAGAAAAGCTGAGGCAGGGCTTCTG
ACATAAGGTAAAAGTGTCTTGGAACATGCTCGGTCCAGGGTCTATAACCCCTTGNGGC
CTATGGAACACCAAGCTCTGTGCCAAAGGGTGAAGGCTGCCCTGCCNCACTACAATNTA
AGCCCAGAGCATAAAACCCCTGTAGCCTGNGGAATATATNCANACTCGCTGGCCOCTTG
CTCNTTGTCTNCCAAGATCACAAATNGATTGCATNTNNAATTAACCACTGNTCTCC
CTTATCNNAAGGTAGCAAGANNCATAGCCAAACCCGTNCAGGNTACCGNTTGNGCACCA
ATTACCTTTNTNTCNTNACGTCTAACCTGGCNACCCTTACNTCANAACATCCTAATTAC
CTGGTTTTTTTTTTGGATTCCCAATAAAAAGGGGGG

Sequence 2530

CCGCGGTGGCGGCCGCGCGGGCATGGTACGCGGGGTCCCTACAAATGCAACGTCTGCAAT
AAAGTCTTCAACCAGCGCTGCTCTCTGGAGTCCACCTGAAGAAAATCCATGGGGTGTAG
CAGCAGTATGCCTATAAGCAGCGCGGGGACAAGCTCTACGTCTGCGAGGATTGCGGCTAC
ACGGGCCCCACCCAGGAGGACCTGTACCT

Sequence 2531

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTGGAAGACCTTAT
TCGATATCTTGAACCAGAGAGATGGCAGTTGGACTTAGAAGATCTATATAGGCCAACTTG
GCAACTTCTTGGCAAGGCTTTTGTTTTGAAGAAAATCCAGAGTGGTGGATCTGAACCT
TCTAACAGAGGAGGTAAGATTATACAGCTGCACACCTCGTAACTTCTCAGTGTCCATAAG
GGAAGAACTAAAGAGAACCATAACATTTTCTGGCCAGGTTGTCTCCTGGTTAAACGCTG
TGGTGGGAACTGTGCCTGTTGTCTCCACAATTGCA

Sequence 2532

GGAGCTCNCCGCGGTGGCGGCCGNCCGGGCAGGTACCNCGGGGGTGCCCGNAAGCAGTT
GTTGTTGGTTGGGGGCCCTTTGGGCCGTGACGGANACTGCCAGGTGTTGGNCACCATGT
TCCTCTNCGCGGTCTTTTTTCCAAGAGCAAGTNANATGNAACAAATAGTCTTTTCGTG
GAAAAGAAAAAATNCGCTCCCTTTNAACGGTGGATTGAAAATGACTNTGNTTTATAAG
AGAANACTGAGGGCGGGGATACTGATTCANAAATNCTGTANCGTGAATAAAAG

Sequence 2533

CCGGGCAGGTACAGCTGCATCAGCTGCTCGTAGGACATGTCCAGCAGCTGGTTCGAGGTCC
ACGCCGCGGTAGGTGAACCTTGCAGGAAGGTCCGCTTCTTCTGCTCTACTTCTGCCACC
CGCGTACCACGGCTATCCTTATAGCTTTTTAATTAATGAAGCCAAGTGGGATTTGCATA
AAGTGAATGTTTACCATGAAGATAAACTGTTCTGACTTTATACTATTTTGAATTCATT
ATTTCAATTGTGATCAGCTAGCTTATTCTTGTGTACCT

Sequence 2534

GACATGGCGCCCGCGCGCTTCCCCCGCGTACTTTTTTTTTTTTTTTTTTTTTT
TTTCTTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTCNAAAAAAAAAAAAAAAAAAAAAAAAAANTAAAAAANTNTAANAAAAAAAAAAAAAGGGGGC
CCCNNGNCCNTAATAAAAAAAAAANNGNCCCGGNGGNGGNGNAAANANTTANAAAAATNTTN
NNANCCCNNGANAANGGGGGGGGNNCNCNNNAAAATTTTTTTNTTTNANGNGGGGA
AAAANGCNCCTNGGGNAAAAAA

Sequence 2535

CCGCGGTGGCGGCCGAGGTACTTCTTTTTTTTTTTTTTTTTTTTACATCCCATATGACA

TABLE 1
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TTGACTGATTAAAAAGGCCTGATCGGTTTTGTTATCTTCCCACACTTCGTTTAATTTAAC
TTGTGTTTTGTATCTCTTATAAACCATAAGATAGGCCAGGCGCAGTGCCTCATGCCTGTA
ATTGCAGCACTTTGGGAGGCTGAGGCGGGTGAATCACCCAAGGTCAGGAGTTCAAGACCA
GCCTGACAACATGGTGAAACACTGTTTTACTAAAAATACAAAAAATTACCCCGCGGNGG
GGGNATGCCCCCTGGAAAATCCCACTTCNTCGGGANGGNTGANACAGGGAAAAATCCNTT
TGAACCCTNGGAAGGCAAAAGGTTTTCNANNGNCTTANAAANCCNNCCATTGTTTNCCTN
AGNCTNGGGNGAAAAAGGGCAAAATTTCTTCNCCAAAAA

Sequence 2536

GACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCCCGCCCGGGCAGGACAAAAACAA
GACTTTTCATCAACTCTTTAGATATGCTAGAAGAGCTAAAGGAAACCATGGACAGAGAA
CAAAAAATTAGGAAAGCAATGCCTCATCCAATACAGAATATCAATAAAGAGATTGAAAT
TGTAAGAAAAGAACCAATAGAAATCTGGAGTTGAAAAGTATTATACTAAACTGAAAA
TTCCTAGAGGTATTCAGCAGCAGACTGGAGAAGTCAGAAGAAAGAAATCAACAGGCTTCA
AGATAGGTCAATTAAGATTATACAGTCTGAGGAGCAGAAAGGAAAAAGAAATGAAGAAAA
TGAACAGAGCATAAAAGACCTCTGGGACTCTATCAAGCA

Sequence 2537

CCGCGGTGGCGGCCGCCGGGCAGGTACAGAGTGTAAGCGAGCTACACCAAAGAATGGTG
ATTAGCGCTCCAGGGTGGGAAAAATGAGGATTGTTTATATAGGCAAAATGGAGGTGCC
AACAGAATTATAACATTTTCGGAATAAGGCTCATTTAAAGATACAAATTTGATTGGCT
ACTATTGATTACACTTGAAGGGGATTTGGTTTAACTTTCTTTGTNAAAGAAAGNACNAG
NNNNTAAGGNNTTTANTTTCCANCCNTTTAAGTCTTAGGTTTTTGAAGAAAAANAAT
ANGGGGGGCTGGGNTTAAATTTTNACCCTNNTAAACCCCNAAAAGGNCCAGAAAAAN
AAATAAAAANGTTTGGTNGNTTTTCCACCGACCCAGGCTTGGCAAGGCNCCCTAACT
TTTTCTNTCTTTNGGCCNAAATNCNATTTGGGGAAGGGCCNAGAAAATTGNTTTTTNTT
TTTACCATTCCCCTNTNTANTGGGNAANNTT

Sequence 2538

CCGCGGTGGCGGCCGCCGGGCAGGTACATCACAACAGTAAAATTTTGCTCTTTGCTTCT
GGAGGAACACCTACAAACAGGTAATTAATAATTAATAATGAAAGGGGAGCTAA
ATACCTGAAAATTTAAACAAAATGAAGCAAAAAAAGGGAAACAAATTCATTGCAAGAGA
TGGAATACATTTTAAAGGCTGAAAATAATAAGAAATTCCTAAACAACNGGCCCTAT
TGNCCTGGCTCCTTCAGAAAAGATTACTGGAANGGAACCTGGGAAGGGGGTTTNGGAAAA
TACAAAATTTTGGGANTTNGGGGGAANTTANCACNGNGNGGAAANCCCCCNGNACC
CCNTTTTTTTTTTNGNGNCCTTTTTNAAAAAAANNGGGTCCCNCGGNCCCNAA
AAAAAAAANTAAAAAATTTTTTCCCCCCCCCTTTNAAAAANNGGGGGCCCCC
CCNNNNGGNGGGGNATTTTTNNNTNNNTTTTTTNNCCCCCCCC

Sequence 2539

AGCCTTGGAGCAGGCAATGATCTCCACCCTCCTGGGTGCGGGTGCAGACTCAGGCATCCC
TGCATTTTGGGGGCTGCTTTGTCAGGCTCGGAAGTGTCTGCCTCTGCAGCTTGGCTTC
TCCCTGCTATTGGCACCAGCTCTCAGATCAAAGCAGGGGGGTAAAGCCTGGAAGCCATGAA
CAGGGAGGGCCTGAAGGCTGAGGGCCAGGCTGCCAGTCCCACCTGTAGGAGTGGGAAGT
GTGCCTTTTCCAGGCCAGTAAGTATGCACTTNTCCCCGAGGCCCGTAAATGCCCCAG
GCTCAGCCAGAACTGAGCAGAGGGTGGGACGACCAGCAACAGG

Sequence 2540

CCGCGGTGGCGGCCGAGGTAAGTCTCAAAGCTGGGGACTCTGAGCCTTACCTAGAGT
CTCAGCAGGTGGACCATTAAGATTAACATTTCTAGTAGGTGAGTTCAATCACAAAAATAT
TTCTTGTTCCATAGATTTTATTGTGGCCATGTCAGTGAACACCCACAAGTTTTGCTCAGA
ATATTTTAGGTGTAAGCTAAATCCCTAAATGTTTCAAGAGTTCCACAGCCCTGTAGCAGC
AGAGCGAGAACTTAAACCAGACTTTTTCAATCCCAAAGCTAATCTGGAGGCCAACAGTGT
TCAAAACCTTGGTGACTGAGGAACCATTTAGAGTTTTTTCAGGCTCAGGAATCACATGGG
TCGTTGTTGGGCTTGGGGTAAGTTTACAGGCGATGAAGCTTGACGTTGAGTCACTTGA
CTTCTGGAGCCATAATTTATTTTCTCCAGCAACCTCT

TABLE 1

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Sequence 2541

CCGCGGNGGCGGCGGAGGTACTCAATGGAGTTCCTTGGGGGGATCCAAAACCNNGGAGAG
GAACACAGGCGCTGAGTATGGAGCAGNNTNGAGACCCACCCACCTGCAGGCCTGACNAG
AGCGCCNNGGATNTCTGGTTCNGATGCCAATACTAGACACCCCAAGNAGNCNGCTCACAGN
AACCNTTACCTNNTTTTNAACGCCCCTGGGCCTCGCNACGCGCACAGAAANGGGANCATA
ANCNNCNGAAAGGNACCCACTGAAGCCCATTTCTCCGNNGAGNCANCNNGNAANNNNNCAG
CTNNCNCCTCGCTAAGGAAGANANCNAGNNGNNGGGANCCNGGCCCNCAACCNCNGNG
GAACCCAGCAGNNCNGNANANCCCCNGCNACCCNAGAAAGAAANNAAGACGGNNAANACN
GGGNGGAACNNNNAANAGANAACACACNNNNNAANAGAAAACGCNNAAGGAAGNNAGNA
CCNGNCCGGGCGGCGGNNCNAAGAAAGGGANCCCCCGGGCNGAGGAANNNGANACAAGC
NAANNGAACGNCGACCNGAGGGGGGGNCCGGACCCAGNNNGGNCCCNNAANGAGGGN
AAANGNGCGCNNGGNGAANCANGGGCANAGCNGNCCNGGGNGAAANGNAANCGNNANAA
NNNNNANAAAAANNANCCGGAGCAAAANGGGAAAG

Sequence 2542

ACTATAGGNTTTTATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGGACATTATTTTT
TCTATTCATCTAGCACNGAAGCCAAATTTGGGTCTAAAATCTTGTGATGGCAACCAGGAG
CTTTTAACTTCCTTCGTAGTGATCTCATTGAAGTTGCAACAAGTTACAAAAAGGAGGA
CTTGATATGTGGAAGAAACATCAGAATTTGAAGCCCGNTTCATTTATTAGAGAAATTG
AAGGATTTTGGTGAGTGTGTGATTGCCCTTCAGGCCAGTGTCATAAAGAAATTTCTCCAA
GGCTTCATGGCTCCCAACAAAAAAGAAAAAAGTACAACTTA
GAAGAAATTTGGAAGATAGAAACANGATAGAAATGAAATATTGNCAAGAGTTTCAGAT
AGAAATGAAAAACANGCTAAGACAAGTTTGGGAGAAGTTTAGAAAGATAGAAAAATNTA
AANGCCCAAAATTGGGATAAATAGCNCTGAAGAAAAAAGAAAAAAGAAAAA

Sequence 2543

CCGGGCAGGTACTAGANNACCTTCCTCGCCACTCTCTCCACATGAGAGAGTCAGCTGCCC
TTTCTCCTGTGCCTCTGCAGGAAGAACTCTCTTGCATGGCACATCTCAGCTCCTCATTGA
GGGATAGTTTTCTTTGATAAGAACTGGAGTCCATTTACTCTGACCTCTCTTTAAATCT
ATATCCAGAGCCACTAGCCCAGGAAAACTTGGGTGACCCGTAATTTCTCTTCTCCTGCT
GTCCTTTTGCTCTTACGCCCCACCCCACTCCCCTTAAATTTTACAGGCTTATGACAGTT
TGTATGTGCTCAGCCAATGAGCAGAAACCTGGAAAGAATTTCTGGACTTTAGCCACCA
GTTTGTCTGGTTGACTAACCTGCTGAGAGCTAAAAATTGGCACCCATTGCCCCGTGCCTT
CAGGCAGTCTCCTGGGGCAGAGTATGCCACCATCCGAATATCAGGCACTGAGTGGGGATG
TGGGTGATGCTCAACATGACTGGCTAGAGCTTTGGGGGTGGGNNGGGGTTAACTACTA
TTTTTTTGCCATGANCTNTTCCCCTTCCTTTTTTTTTTAATTAATAAANGGNTCAAN
TAAATANTTCAAGGCCTGCCTTTNAAAAAATTTTTTTTTA

Sequence 2544

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTATTTCA
TATATTGTGTAGCCCCACAAATGTCTATTTTAAAAAGAGTATAGTCCCTGGCCAGGCGC
GGTGGCTCACGCCTGTAATCCAGCAGTTTGGGAGGCCGAGGTGGGCGGATCACCTGAGG
TCTGGAGTTGAGACCAGCCTGACCAATATGGTGAAACCCCGTTTCTACTAAAAATACAA
AATTAGCTGGGCATTGGGGGAGCATGCCTTGAATCCAGCTACTCGGGNGGGTTGNGGN
GNGGAAAANANCTTTGAACCCCCCNANGGCCAAAGGTTTTTTATTTGGGGCCCCAAAAAA
ACCNCCCTTTTGCCCTTCANCCCNNGGGNNAANAAAAAAGGNGGAAACNTTCCNCTN
CCCCCAAAAAAATTTTTTTTAAAAAATTTTAAAAATTTCNAAATTTAA

Sequence 2545

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTCTTTTTTTT
TTTTTATGTTTTTGAATCCCGTCTCTACTAAAAATACAAAAAATTTTTTTTTT
TGGCCGGGCATGGNNGCGCATGCCTGTAATCCAGCTACTCAGGAGGCTGAGGCAGGATA
ATTGCTTGAACCCGGGAGGNGGAGGTTGCAGTGAGCCGANATCGTGCCACTGCACTCCAG
CCTGGGCAACANAGTGAGACTTTNTNTCGGAAAAAATTTTTTAAAGATCTGGNNGGTGAA
AATAACCNGAATGAAAATAGCTTGAAAACCTCACANGNGGGAAGCTCCCTTTTACCCTTTT

TABLE 1
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TNTTCCCTTGGCCNGATGGAATCCNNNCCCTTTTTTANAAAAAAGGGAAAGNCCNCTT
TTTTTANAAAAANANTGGTTNTNAANATTTTNCNCNCCCCGGGGGGGGGGGNGTTATTA
AAAAAANGGGGNCCCCCCCCGGGGNGGGGAAAAATNNNTTNAAATTTNTTTNCCCCCCCC
CCCCNNGGGG

Sequence 2546

CCGCGGTGGCGGCCGCCGGGCAGGTACCTCCATTGTTTCTAGGAAGTAACTAACTTGCT
TTTGATTTTACAGGCTTGTAGGTGGAATGGGCTTGCCCTGTCTCAGATGAGACTTTGGAC
TGTGGACTTTTGAGTTAATGCTGAAATGAGTTGAGACTTTGGGGGACTATTGGGAAGGCA
TGATTGGTTTTGAAATGTGAAGATAGGAGATTTGGGAGGGACCGGGGTGAAATGATATGG
TTTCGTCTGTGTCCCTCACCCAAGTCTCATGTTGCAAGTCCCACAATCCCACGTATTG
TTAGAGGTGATTGAATAATGGGGGTGGGTCTTCTGTGCTGTTCTTGGGATAGNGAATG
GGTCTCATGAGATCTGATGGTTTTAAAAACGGGAGTTTNTNTGCACAAGCTNTCTCTTT
NCTGCTGCCATCCATGTAANATGTGACTGGC

Sequence 2547

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGACCATGACACCA
AGCATTCTGTCCCCTCCCCGCAATGGCAATCAAGTGTACAGAAAAATAGCCTTTTAA
AATTACCATGAGCCTTTTATTTTATTTTATTTTACACCCAGGCTGGAGTGCAGTGGCGT
GATCACGGCTCACTGTAGCCTCAAACCTCTGGGCTCAAGCAATCCTCCTGCCTTGGCCTC
CCAAAGTTGGNTNAGGGTTGATGAGCCACTGTGCTCAGCCAACCATGAGGTTTTTAGAGA
TGATCTTGNTAAACCCTTCTCGCCTGTTTTGCAGAAAAGAAAATTGAGATCCCAGAGAA
ATGAAGTAACTTGCCCAAGGTCATTGAGCAGGCAAGATAGAACTAGATCCCCAAATTGCA
AACTAGCTGNCCAGAGTTCTTTCTCAATGAGCAATTTAAAGC

Sequence 2548

CCGCGGTGGCGGCCGAGGTAATACTGTCTGGGATCGTAGTCGATTAAACAGAGCCACCT
TTGTTCTGAGGCAATGCATAAGTCAGCATTTTTCAATGACTGCTTCTTTTGAAGGTT
TGGAGATGACTTTTATCCGCTTGCTGAGGAACACACCAATGTCATCACTGTTGCCATAGA
ACATCTTTACAGACAACATGAAGTGCTTCGCTTGCTGAGTCAGATATATACAATGGTT
TGGTGGTGCCATAAGTTCTTTTNTTCCAGGTTAAGCTGGCTGCATTTTNTTGGTCACT
ATTTCTATNCCAATAAATGCACACNGGTGAGACTCTTGTTCAAAAAACAACCATCGCGGT
CCATTTGGTCTTTTTTTTTTCTTCCATTNCNTGGCCATAAGATATCCAAGGGGGGNGGGC
AAAAAAGTGGGAGTTATTTTGTATGCCAAAAAGACACAGCCAAGAGGACTTGNGGATCAT
GCCCC

Sequence 2549

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTGGCATAAAAAGTGCACAAGTTTGTCTATGTGTTAAACATCTTAATTT
GGATGTATTTTTATCCAAATGATGCATACTTGGATGCATTAAAGCACACCAACAAAAA
TNCNCNCTNTAACAATAANGGNNNNNTTNNNAANGGNGNCGGGGAGNGGNAACAANATTT
NGGTANANGGGANNTTNTTTTTTTTTTNCNAANAAAAAGAGAATTTGCTTTNTAAACAAN
AATTTTTTCCCNNCANATTTAATTTGAAAATNTGAAAGNTATNGGAAGGACANNCNCC
AATTGGAACACNNTGTGCAAAAGTTCNANAACNAAANAAAAGATNNTTTTCTNNGGTTNGG
GCNCTNANNCCNTGNAATTCAANATTTGGGGNNGGNNNGGNNCCCCNTTTTTTTTGGGGG
GNGGGGNTTCCCNCCCCCCCCCCCCCANNNNGGGGGGAAANCNTTTTTTTTTTAANNAA
AAAAA

Sequence 2550

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGTGCTGAAATC
CGGCATGTTCTTGTCACTGGGTGAGAAGATGACAGAGGAAGAAGTAGAGATGCTGGTG
GCAGGGCATGAGGACAGCAATGGTTGTATCAACTATGAAGCGTTGTGAGGCATNTCCTG
TCGGGGTGACGGCCCCNTGGGNGGACNNCCCCCANNGGNCNTAAANGGGTNANAACCNTT
CCNGTTTTCCCAANGCCCCGCCCTTTTCCNTTGGGANAANTTTTTNTTCTNCCNCA
AAANGTTNCCCTAGGNTTNTTGTNCANNAANTTTCCCATTTTGTNTNTGGGANGAT
GTTTNGCCCGTCANNTTCCACCAATAANANTTCTTTTGGNAAAAAATNNTAAANTN

TABLE 1

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NNNNCNTNNNNNNAAAANCCCCCCCCCCCCCTATNAAAANTNAGGGCCCCCCCCCGGNNN
GNAAAAAATAANANTAAATTTTTNCCCCCCCCCNCNCNGGGGGGGNGGCCCCCCCCCNCT
TTTTTTTTTTNTAANNANCCCCCCCCCCCC

Sequence 2551

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGTGTCTCACCACATCCTGGCTCCA
GTGTGGATGCAGAGAGAGTGTGACAGAGGATCTGCCTGCGAACCACTGGGATTAGTCAA
GTCCCAAGGTGCCAGAGTGGGACTAGTTCTTCACAGTGTGGCAGCTGCACTAATCTGTT
TGTGAGGGAATATCCATTCCCTCACTCTACTCTCNTCATTATGGGAATTTNTTTTGTTN
CAAAATAAANCCCTTTTGTATAGANAAAAAAAAAAAAAAAAAACCNCCCCCCCNNTTNA
ANAANGGGCCCCCCCCNGGGGGNGNANNNTTNNAAATTTTTTTTTNCCCCCCCCCNGG
GGG

Sequence 2552

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGGGATCTTTTGGCAN
GAGCCCCAAGTAAAGCTGTCAATCCTGATGAGGCTGTGGCCATTGGAGCTGCCATTCAGG
GAGGTGTGTTGGCCGGCGATGTCACGGATGTGCTGCTCCTTGATGTCACTCCCTGTCTC
TGGGTATTGAACTCTAGGAGGTGTTTTNCCAACCTTNTTATTGGGATTNTNTTTTCC
NNCCCAAAAAGNGCCGGGTTTTTTNNTCCCCNTNNNGGGNAACCCNGGGGGGAAAAAA
AAANGTGGTTCNNGGGNAAAAAAAAAANTNTTTAAAAAANATNTTTGGNNNNN
ATTTTTTTTTGGGANAGANNNCCCCCCCCCCCCCNGGGGGGGNNTNTNTNAAAGAANN
TTTNNNTTTTNCATTTTNNCCCCNNNNNGATAAATNCCCCCCCCGGNNGCCTATATAAA
AAAAAANCNCCCCCCCCGGGNNAANAANTTTTNAATATTTTTTCCCCCCC

Sequence 2553

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTAATCTTTTTTTTT
TTTTTTTTTTTTTAAAGACGGAGTCTCGCTCTGTCGCCAGGCTGGAGTGCAGTGGCGG
GATCTCGGCTCACTTCAAGCTCCGCCTCCAGGTTCAAGCATTCTCCTGCCTCAGCCTC
CCGAGCAGCTGGGACTACAGGCTCCCATCACCACGCTCGGCTAAGTTTTGTATTTAG
TAGAGACAGGGTTTACCATGTTAGCCAGGATGGTCTCGATCTCCTGACCTCGNGATCTG
CCCGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGTGCCAGGCCAATA
TGAAAGTTTTAACTTATTGGCACAANAAGTTTTCATGAACCTAACATATTTAATTAAC
AAGTATTCTTCAATAACATTCCCTT

Sequence 2554

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTAATTTTT
TTTTTTTTTTTGGAGACGGAGTTTCACTCTTGTCACCCAGGCTGGAGTGCAATGGCGCAAT
TAGGGTTCACTGCAACCTCTGCCTCCCGGGTTCAAGCAGTTCTCCTGCCTCAGCCTCCTG
AGTAGCTGGGATTACAGGCATCCACCACCGTGCCAGCTAATTTTTGTATTTTAGTAGA
GACGGGGTTTTGCCATGTTGGACAGGTTGATCTCAAACTCCTGACCTCAGGTGATCTACC
CTCCTCGGCCTCCAGAGTGTTGGGATTACAGGCATGAGCCACCATGCCAGGCTGCTAAT
TCTCCTTTTAGNGAGTTAGGGGAAGTGAAGCTCAAAAACTTAAACGATTTCTCAAAA
AACACCTCAAGTGATAAAGTGGCCACATTGNAAAGGGAGTTTTATCTTTTATTGNNNG
CCCAGGGGTCAATTGGACAAAATCATGCTACCTNTTGGATTTTAAATATTCAATTGGCAA
A

Sequence 2555

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGACTCAGAGGC
CGCCATCAACCGCCAGATCAACCTGGAGCTCTACGCCTCCTACGTTTACCTGTCCATGT
CTTACTACTTTGACCGGATGATGTGGCTTTGAAGAAGTTTGCCAAATCTTCTTACC
AATCTCATGAGGAGAGGGAACATGCTGAGAACTGATGAAGCTGCAAAACCAAGNNNGN
GGCCGAATCTTTCTTCAGGATATCAAGAAACCNAACTGTNATTACTGGGAAAAGCGGGC
TTAATCAAGGGGGGTGGGCCTTTANNTTTTGNAAAAAAGGGNGAATTNATTTCTNTTT
TTGGGAACAAGNAAAAACCTGGGCCAAAAA

Sequence 2556

CACTACTATAGGGCGAATTGGAGCTCACC GCGGTGGCGGCCGCCCGGGCAGGTAATTTTT

TABLE 1
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TTTTTTTTTTTTTTTTTTTTNAGACAGGGTCTCCCTNTGTCACCCAGGCTGGAGTGCAGT
GGCACAATCATGGCTCACGGCAACCTCGACCCCTGGGTCCAAGTGATCCTTCCACCTCA
GCATTCCACAAGATGATGGAACCACAGGCATGCACTACTATGCCTGGCTAATTCTTTAT
TTTTTGNCGACAGAGGTCTCCCTATGTTGCCAGGCTGGTNTTGAACCCCTGGGCTNA
AGCTATCCTCCCGCCTTGGCCTCCCAAAGNGTTGAATTANNNGGAATGAGCCACTTTTTG
GGCCTNNGCCTCNANTTAATTTNAAAANGGNGTTTGNNTTNAACCNCCGCCCTTTAA
AAAAAGGGGCACCCCGGGNGGGGNAATTTTNAANNNAATTTTTTCCCCCCCCC
CCCCCGGGGGGGGGGNGCCCCCCCCCTTTTTTTTTTTTAAANNAAAAAAANCCCC
CCCCCCCCAAAAA

Sequence 2557

ACTNCTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACTTCTGTCAAATT
CCTTCTTGATATGAGCCGCAATGCCCTCTCTATGTTGTATTTCTCCAGCGCCTGAGTAG
CGCACTCCACCGAGTCCTGTTGCATCTCTCCGACATGTCCGCATTTTTGATCACGGCCT
TTCGGTCGCCCCGCGTACCTGCC

Sequence 2558

CTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACTACTGCTGAGGTCTNCAG
GACAGAAGNCACCTCCTNTGGTAGAACATNCATCCCTGGNCCTTNTCAGNCCACAGTTT
GCCAGAAATATCCACANGAACAAATGACAAGGCTTTTGCCT

Sequence 2559

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTAGGGGACACGGTCTATCCGCAA
GCTGNGGATTCTGCCATTCTCATCATAGTTTTGAAGCCGGGGTCTGAAATCTCATGACA
GATCTCCAGCTTGAACACGGAATGGTTTTCTAGGCCCTGCTCATAATACAGCTGCAG
GTAACCAAGNGTCTGTCAGTTTGACGAANATCGGTCCCCAGTGCCTGGAGGACATGATGTT
TTTNTTCTCAGGGATCCTCAACATNATTGCCACCCGTCACGAGGCTGGGACCGTGTGA
TCCAGGCGGGTGAGCATNTAGTTCAATCCAGGCTACTGGGTCATCATCAGGTAGAGTTGC
ACTGCCAAAGTGATCAGGGTCATTAATTTGGAGTTGTTTGAGTTTTTCAACAGCATCAGA
AGTGNGACTGGGTTTTGCTTTGAATCATCNAACTGGATGGCATCCTTGGNAGATGACAA
TGAAGGGAATNTNTTTGGCTTT

Sequence 2560

CCGCGGTGGCGGCCGCCCGGCAGGTACTGGGCCGGGTGCAGTGGTTCACGCCTGTAATCC
CAGCACTTTGGGAGGCCGAGGCAGGCAGATCACGAGGTCAGGAGATCGAGACCATCCTGG
CTAACACGGTGAAACCCTGTCTNTACTAAAATTACAAAAANTTANCCGAGCNTGGNNATG
GNNGCTTGNAATNCCAANTNTTTCGGAAGCTTAGCNAGAAAATNGCTNAACCTTGGANGNG
GAGCTTTGANTGAGCCAAAATCCCNCCNTTGNACTCANCTTGGGGGAAAAAACCNGNAA
NTCCTTTTTTAAAAAAAAAAAAAAAAAAAAAGGGNCCNNTCGGCCCTNTTTTAAANN
TTGGGGACNCCCCCGNCNNNNNGGNAATTTTTTTTNAAACTTTTTTTNTNCCCCCCCC
CCCCNNGG

Sequence 2561

NCTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTT
TTGATTGTTATTTAGTTTTTATTTTATAATCATAAACTTAACTCTGCAATCCAGCTAGGC
ATGGGAGGGAACAAGGAAAACATGGAACCCAAAGGGAAGTGCAGCGAGAGCACAAAGATT
CTAGGNTCCTGCGACCAANGGGGGGGGNGGCCNNNNNNNCCCNAAAAAANNTTN
GGGGGTTNAAAAAANCCCCNTNNTTTTTTTTTTTGNCCCNCCCCANCCNNGGGGGGGG
TTTTTTTGNNGGGGGGNTTGGCCNATNCCGGNANCCCAAAGCGCTCATGCCNCANAAA
NAANANTCCGNGCCTTTTTTTTNCCTTGNGNCAACCNCCANTGNGCTTTNGACNCCAC
CCNCTTCATTTTTGGGGGGGGGCAAAAAAAAAAANCCCGGCNCNCTTTNGGGGGGGGGN
CCCNTTTTTTTNAAAAAAANANNCCCCCCCCCTTTTTTTGNGANNAGGATTTTT
TTTT

Sequence 2562

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTT
TTTTTTTTTTTTTTTTAGGGGACACGGTCTATCCGCAAGCTGGGGATTCTGCCATTCTCA

TABLE 1
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TCATAGTTTTGAAGCCGGGGTTCTGAAATCTCATGACAGATCTCCAGCTTGAAGTACCGG
AANGGTTTTTTTAGGCCNTGNTAATAANNNAGNTGCAGGNAACCAGGGTTTTGCNATTTG
NNCAAAAANCGNNCCCAANGNCTGGAGGACANNNTNNTTTTTNTTTTNAAGGATNCTTAAC
ANTATTGGCCNCCCGTAACAAGGGTGGGACCGNCCTTATCCAGGCGGGNNGGGCTTTTAG
TTCAATCCCGGCTCTGGGGNANTANTNAGNAAAAGGTNCCTTCCAAAGGAANNNGGGGCAA
NAATTGGGNGGTNNTTNGGNGTTTTTCAACCCNNANAAAAGGGGGCCGGGGGGTTTTTT
TTAAAAANAAAAAAATGGGGGCNTNTTGGAAAAANAAAAAGGGAANNTTTTTTTT

Sequence 2563

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCAGGTGGAGAGAGGGTGGAAAGTGA
GCAGCGGGCTGGGCTGGAGCCGCACACGCTCTCCTCCCATGTTAAATAGCACCTTTAGAA
AAATTCACAAGTCCCCATCCACAAAAAAGAAAAAGTACTATTCTAGTCTTA
AGAATAAAGACCNTGTTTCAGCCAGGCGNGGGGTTGNCNCNTGTANTCCNACNCNTTNGG
GNGNTTGGGGGGGCAAAATCCGGGGGTGAGGGCATTGAGACCAGCANCCCGGGGTCAGG
CTTTCGAGACCCAGCCTGGCCAACATGGTGAAACCCTGTCTNTACTAAAAATACAAAAAT
TAGTTGCGCATGGGTGGTGCACACCTGGTAATCCTAGCTACTCAGGAAGGTGAGGCAGGA
GAATCACTTGACCTAGGAGGCGGAGACTGCAGTGAGCCAAGATTATGCCAATGCACTCCA
GTATGAGTGACAGAGCAAGACTTGTCTCAAAAAA

Sequence 2564

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGAGCTC
GGATTTTAAGGCAGTAGCCTGCTGATGCTCCAGCTGAATAAAGCCCTTCTTCTACAAT
TTGGTGTCTGAGGGGTTTTGTCTGCGGCTCGTCTGCTACATTTCTTGGTCCCTGACCA
GGAAACGAGGTAAGTATGACAGCCGAGGCAGCCCTTAGGCGGTTAGGCCTCCCTTGN
GGAGCATCCTTGAGGCGGTNTCCCCCCCCCGGGCCCCCTTNAAAAANANNCCCGN
AAAAAANANCCCCCGGGGNNNCCCNANNNNAACGGNNGGGNCCCTTTTTTGGGGNNNAA
AAAAANNCCNNCCCCCACCNCAANAANNACTNTTTTTTTTNCNNTNNTNNAAAAAA
AAAAAANAAAAAANNTTCCNCGGGGGGGGNTTNTNAAAAAANNGN
GCCCCCGNNGGGNGAANNTTTTTNAAATTTTTNCCCCCCCCCCCCCGG

Sequence 2565

GCGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGTTTTTTTTTTTTTTTTT
GCTGGTAGGAAATGCTTTAATAAAATGCAATCTCTAAGGGGCCATGGCATCATTAAAG
AAAGGATGTCATGCCAGATCCANAACCTTGAAGGTGGCNGGCACCAGCAAGCACCATANT
TTTGAATNGGCCTTNCCTTNCAGGGTCTTANTTTCCACNNNTGTTACTTTTTTTCNNC
CTTGAAAAATGGANNAACNTGTTNCNCNCCCTTGGGTTTNTTAGTNGGGAGGGAACCTT
TNGTCCANCTAAAAATNTTGNNGCGNGGGCCANTTTNGGGGGCNTTTNGTTTTTNNAN
TTGGCCCCNNGGGGGGCGNGGGGGGNNNCCCTTTGTTNNNCNNNTANGNNNAAANT
TTTTNNNTCNGGGGNAAAAA

Sequence 2566

NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGAAGAAGAGG
AAGAAGAAGAAGCAGAAGGAATGGAAAGCCTGGAGAAAGAGGATGAAATGACGGATGAAG
CAGTTGGAGACTCTGCTGAGAAGCCTCCTTCTACTTTGCCTCACCTGAGACTGCTCCAG
AAGTGGAGACCAGCAGAACTCCACCAGNTTGTGAACCCCCAACCTTCAATCAAGAAAAG
ACCTTTGATCAGGAGAAGACTTCTCGTTTCATTTGGGGACACATTGAGGATTTCTTCAA
AAGCAGTGAGTAACATTGAACCCCTCTTGTGCTATTCTGGTCTNTCTTCTNATANAAA
TTGGAANAAAACCCCCGGNCCCTTGGAGCCTTTAAATGCCAAANGNNNGCNCTTTNAAA
ANTTAGGGNANCCCCCGGGCGGGGGGNATTTTTTTTAAAANTTTTTTNCNCCCCCCC
CCNTGGGGGGGGGGCCCCCCCCCNNTTTTTTTTTTTNTNNAAGNNNGNGNANANNCN
CCCCNNGGNAAAAA

Sequence 2567

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACTNCTTTTTT
TTTTNTNGNGGACTTGGGCTTCTCTGCCCATATTGCANTGTTGATGTTCCAGAGTTCT
ATCCTTACTCTAAANGATCTCCATTTTGTAGCTTATCCACACAGNGGACTGTGGNTNCT

TABLE 1

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GGTCTTNGNCTTNTGCCTAGGACNTNCTTTCTAGGTANCCACATGCCTGCTCTCATT
TNTTCATGTCTTAACCTCANAGGNCAACTTTGANTTAANGCTTTCTATNACTACATTNAAN
ANNGTGNGACCTTTCNTGTCTNCCCANCTNGCCTGATNTTNTCTTNTCCATTGCACTTNT
CTTNTGACTTCT

Sequence 2568

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGGGATT
TCCGNTGAGTGACCTTACAAGTCCTTCTTGATCCTGAACTGGGTAGGTGCCGCTGNTG
CTGCTCGTGTTGAATCTAGAACCCTANCCAGACATGGNACTGGAGGACGAGCAAAAGATG
CTTACCNAATCCGGAGATCCTGANGAGGANGAAGAGGAAGAGGAGGAATTAGTGGATCCC
CTAACACAGNGAGAAAGCAATGCNAGCAGTTGNAGAAATGTGNAAGGCCCGGNAGCGG
TTAGAGCTCTGTGATGAGCGTGTNTCCTCTCGATCACATACAG

Sequence 2569

CCGCGGTGGCGGCCGAGGTACATTATGTTTTCGTTTTCAATCATCTCAATAGTTTCTTCT
TGGAGATTTGGGGGAAAATGATAGACAGGAGGCAGGACTAGATTGCAGCCCTCACCCGG
ACAGACAGCAGCTCACAGGGACTCGCATCATGAACTTTGGCTCCAGAACTACTGCAGGAA
TATACCAGGAAAGCCAAGAGAATCCACAGACCCTCTGAAGGAAGCAGATTGCTCCTTCAG
GACCCAAGAGACACCCTAAATACTGTGTTGGTATCGTTGGCAGAGAAACCTCAAGACGGT
TCACATTACAGGACTCTGTGCAGACAACCCTCGGTACCTGCC

Sequence 2570

AGGTACTACAAGAACATCGGTCTGGGCTTCAAGACACCCAAGGAGGTGCGGGGAACCTCA
GAAGAAAGAAGGGGAACCTGGCGTTCCTGCACGTGTGCCACGACGAGTTGCCCTGCCTG
CATCTAAGTGGCTTCTGGGGCTGCTGGGAATTGTAGTTGCTTCCCTGAGGCCACGCCCCCT
GGCTNTTTTAAGGAACCGCCCGCCCAAGGCTCACTCCTTTATCTTTCCTATCCTTTTCAGG
CTATTGAGGGCACCTACATTGACAAGAAATGCCCTTCACTGGTAATGTGTCCATTGAG
GGCGGATCCTCTCTGGTAAGTGCGGGAGTTACTGGTGTNTGGGGCTGAAATACTGAAAG
AAGGGTCTTGGGGCCA

Sequence 2571

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCNGGCCGGGTACCCCCATNACAG
NNGNCAANCNGNCTGAGGAAGTGGCNCCTACCANGCAGGNGATCTTNCNGGAGCGGTTGG
CNGCAGNGCCNGAGTTNCACCGGTNTTNGNCCCCTGTTCAAGTNCTNACCTGANCCCATG
GCCCTCACCGNGTCANAGACGGAGTNTGTNATNCGNCTGCACCAANCACACNTTCNNCAA
CCACATGGTTTTTNANNTNGNCTGCACAAACNCACTNAATGACNTACCTTGGANAATGT
NNCAGTGCNNATGGAGCCCANTNGGCCCTATGAGGTGCTCTGTTACGTGCCTGNCCGGAG
CCTGCCCTACNANCANCCCGGGACCTGCTACACACTGGTGGCACTGCCCAAAGAAG

Sequence 2572

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNNNGNCCCGGGACGCACAGNAAANN
CNTGTNTTNGTNGGNNTNTCTATNAAAAAGGCAATCAAGAAAGATAATGTGAAAAAGANA
GGAATTNATAGGTGCGGAANANATGAATGTCAAGACATTTGAAGAACTATAGTAAATGA
TCAACACTAAATATACTNAGAGAAANCTTTGTTAATATGCCAATGAGGTNGGCCTGATCT
TTGAAATAGTGAATAGGAATNCAATGCATTTCTCAGTGATCACTGATTANGAATGAGTT
GGTNNGGATCCTTGGGA

Sequence 2573

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGGAAGCCTGGTTGAAGTC
TTTTCTTGAGAGGCCTGGATTGTTTACATATTCAGATTTCAACTGGCTTTATAACAGG
TTTCCTTATGTGCCTCATATTGGCTCCAGGTTCACTGGGTTTAAAAGGAGCCAAAGCACC
ATAAGGTTTTGGCAAAGGAAGAGTGGCATCTGCTTCTGGGATGTAGGCATTGCGACGCTG
CTCTGCAGTTGTGTAAACACCATTGGGCAGCTGGCGATTATCTGCTTCCAAGAACTCCTG
AGACTTTTCAGCGATGGCCAAGGCGTGCATTTCTTCATCTCGAAGGACTTTCAACCATTCT
TTTCTCAATTTCTTATTGAGTGGCAGACCTTTTTCTA

Sequence 2574

TGCCGGTGGCGCCCCGAGTCCGCTTGTCCGTCTTNTCTCTGACTGNGGTACNNCGGG

TABLE 1
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GCCTGTCTCTGCAGAGGTCANGGGAGGCGNGGGCCCCAGCACACGTTCCNCAGTGGCAGC
GNGGAGCGGCAGCTTACGGGTTGCGGGGAGCCCCGACCCCCAAGGGCTAGAGGAGCNC
TCGGCGGACCAAAGAAAGCCGCGAAGCGGNTGCGCGCCNACCAATAGGTGCGGGGCTCG
GAGCCNNACAACTTGCGCCGTACCTCCNTCCGCCCCCGCCCCGNCNCCNCCGCCGCCG
CGACTCCCCCTACTCCTGCTCCTGCCTTGCTCCTCCGCCNAACGTNTCGCACTCCGAGA
GCCGNAGNGGCAGCGGNNCCGTCTGCTGCAAAGAG

Sequence 2575

CCACGCGTCCGTTCCAGNCAGTTCCATCCAAGGGAGAATTAAGTAGAGAAATTTGTCTG
CAATCTCANNGGNNNGACAAATCTACGACACCAGGAGGAACAGGAATTAAGCCTTTCCTG
GAACGCTTTGGAGAGCGTTGTCAAGAACATAGCAAAGAAAGTCCAGCTCGTAGCACACCC
CACAGAACCCCCATTATTACTCAAATACAAAGGCCATCCAAGAAAGATTATTCAGCAA
GACACATCTTCATCTACTACCCATTTAGCACAAACAGCTCAAGCAGGAACGTCAAAAAGAA
CTAGCATGTCTTCGTGGCCGATTTGACAAGGGCAATATATGGAGTGCAGAAAAAGGCGGA
AACTCAAAAAGCAAACAACACTAGAAACCAAACAGGAAACTCACTGTGAGAGCACTCCCCCTC
AAAAACACCAA

Sequence 2576

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGCCTCCTCTATTCTCCCA
ATCTCAAGGTACTCTTAAATACTAGTAAATGCAAAAAGAACTTGTAAGTGGCAAGGCA
TGGCCTATCAAAAGTCAGCCCAAGGGCAGTTTTTCAGCCCTGCCTCACCTGGGTCTAGTTC
AGCTGACGGATGAGCTGATTGATGCGTTACCCCGATAGCCAGGTGTGCCATCTCCTTG
AGGAAGCCCACTCTATTTTTGGTAGCATGACGGGCCACTGAGAGGTGGAAAGGGCCAAAG
AACCATGAGATCTCCTGGAAATGCTTCCCTGGGAAGGCAATTTTCATGAATGAGGTCTTCC
AAGCAAATGACGCCAAACTTCCCCAGGTGCTCCTCAATCACTGTACCTGCCCGGGCGGC

Sequence 2577

AGGTACAGAGTCTTTTGCTTCTCCACCCCTAGGGGGAAAAACTGCTTTGTGCTTTGGG
AAGTTGTCTCTGAAACCCGGGGACAGAGGACGCAGGACAGACTAGGAGGGAGCCGGGAGC
TGCCCGGCGGGTCATGGGAATAACGCCGCCGCATCGCCCGGTGCGCATCGTTTATGGTCG
GAACTACGACGGTATCTGATCGTCTTGAACCTCCGACTTTCTGTTCTTGATTAATGAAAA
CATTCTTGGAATGCTTTGCTCTGGTCCCGTCTTGCCGCGGGTCCAAGGAATTTACCC
TTCTAGCGGGCGCAATACGAAATGCCCCCGGCCGCTCTAGAACTAGTGGGATCCCCCG
GGGCCTGCAGGGAAATTTCCGATATTCAAAGCCTTATTGCAATACCCGTGACCTCGAGG
G

Sequence 2578

CCGCGGTGGCGGCCGCGCGGGCAGGTACCCCGAGTCCAGCGGAGACAAAGGAGTTAGAAA
GAGACAGAATAAGAGTTTAAAGGCAGGTCCAGGGGACCGGAGCGTTGGAGGCTTGCTCA
TGGCCCAGAGCTCTTTGGCTCCGCCCAATTTATTGATTTACAAGCTCTTTGTTCTTAGGG
CAGATGGGAGGGGTAGGAAGGGATGAGGAAAAGGATTAATCAGTGAAGGAGAAGTCTGTA
GTCATTCAATAATATGTATAGTAGTGGTGGTTTCTGTGAATTTCTTGAGTAAAGGCGTG
TGTCTAACTACTCAAGATCTTTAACTTATCGGNATTGAAATGGATGGG

Sequence 2579

AGGTACGCGGGATAGTGAAACCCCGTCTTTACTAATTTTTGTATGTTTGGTAGAGACAG
GGTTTACCGTGTTGGCCAATATGGTCTCGATCTCCTGGCTCATGCCTGTGNNCCAGCA
CTGTGGGAGGCTGANGCAGGAGGATCATNTGAGGCCAAAGAGTTCGGGATCAGCCTGGG
CAACATAGTGATACCTATCTCTTAAAAAAGAAGAAGTTTTTAAATTTGAAATAATAANA
GGTACCTTGCCCGGGCGCGCCGCTCTAGAACTAGTGGGATCNCNCCCGGGCTGCAAGG
GAATTTGATATCAAGCCTTATCGGATACCGTCCGACCTTCGGAGGG

Sequence 2580

CCGCGGTGGCGGCCGCGGGCAGGTACGCGGGATGATTGAATTTTGTTCGCCTAAAATAGT
AATCTATAAGATATAAACTCGAGTTAGGGTTTACATTTTTTACTTATGAACACAGGGCAC
TAGGGCCACTTCAGTCTAATTTCTGCTTTTAACTTTTAACTTAACTCCACAGGAGGAGG
ACTGGTTTTCTCTGTGACTTCCTAATGTATGGCAAGCAGGACTTCTTCTAATCCACTAC

TABLE 1
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CCTCTTCCCCTAGCTTAACTAAGGCTTGCAGTAAAATTATAAATTTCCACTTTCTTTCT
ACATTCTCAAATGTAGGAAATGAGGACAAACAACCTCCTCTCTCCAATTTACAACACTAT
CAACTATTTGTCCTTTATTGTGCATTTTACAGACACAGGTGTTTTAATTGNTAATCATGTTT
TTAACTGCAGTGGATGGCAGGTTTT

Sequence 2581

CCGGGCAGGTACTTTTTTTTTTTTTTTGAGATGGAATTTTGCTCTTTTGCCAGTCTGGAG
TGCAGTGGCATGNNCTCAGCTCACTGCAACCTCCACCCACTGGGTTCAAGCGATTCTTNT
GCCTTAGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGTGCCTGGCCCTGTCT
CTCTTAAGAGTAGGTTCAATTGTCTGTCTTAGAGTCACTTCTATTGCAACTCATTTTCTTT
TTCCAGGGCACAGATCGACCAAGCTGCCGGTCCCTATTCTGCAGGGACAGGGACTATTT
CTAGCATACCTGCTTTCGTCCACCCAGGCAGGGGTTTGGGGTGGGTCTNTTCTGTGCCT
GCAGTCCCCCATTTTGACACTTTGGGTGCNCACCCATTTTTTGGGANAATNATTTGTTT
GGGAAATGAAGGCTTCCATTGGG

Sequence 2582

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCTTTCTTTTTTTTTTTTTTT
TTTGAGATGGAGTCTCGCTCTATCGCCAGGCTGGAGTGCAGNGGCGCGATCTTGGCGCA
CTGCAAGCTCTACCTCCTGGGTTACACCATTTCTCCTGCCTCAGCCTCCCAAGTAGCTGG
GACTACAGGCGCCTGCCACCATGCCTGGCTAATTTTTAGTAGAGACGGGGTTTCGCAGTG
TAGCCAGGAAGGTCTCAATCTCCTGACCTCCTGATCCGCCCGCCTCGGCCTCCCAAAGT
GCTGGGATTACAGGCGTGAGCCACCGCGCCAGTTGTGCATTTCTGGTTTCTAAGAATCA
AACCATTGGGCTGTTTTAGAAGTTACTTCCCATGTTATAAAGCTGAGGAAGCTTTTTT
TTTTTTTTTTTTGAGACAGAGTCTTTGTNCNCCAAGCTTGGAGTGCANTGGTGCAATCTT
AGCTCCCGGGTTCAAGCAATTTTTCTGCCTTAAGNCTTCTGAGTAAGCTAAAAATACAG
GNGNCCNCCACCCGNTNGGCTTATTTTT

Sequence 2583

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGCCAGGTACGCGGGGGCACTCAG
GGAGCTCAGATTTTGAGACAGTNGCTGGCCGATGCTCCAGNTGAATAAAGCCCTTCTTT
CTACNAAAAAGAAANNGAAAAAGAAANACAGGATATCTGAAATTAAGACNGCNGATGGA
GNNGTTTCTNNAATGACAGGNGNCAAGGNGNGACCACGGGACCAAGNGGCTGAACTGGN
ATGAAGTTAAGAAGCAGNAANAAACATCCNATAATATGGTGATCAGNTCAACAGAATGAC
ATATTNACCATGTNCCNAGGAGNGATGACTGAGATTTCAAAT

Sequence 2584

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCTGGATAGCCTCCAGGCC
AGAAAGAGAGAGTAAGCGCGAGCACAGCTAAGGCCACGGAGCGAGACATCTNGGCCCGAA
TGCTGTCAGCTTCAGGAATGCCCCCGCGTACTTTTTT

Sequence 2585

CGGCTGCGGCGAGCCGGTATCAGCCTNACTCAAAGGGCGGGTAATACCGGGTTATCCACA
AGAATCAGGGGAATAACCGCAAGGAAAAGAAACATGTGGAGCCNAAAAGGCCAGCAAAAG
GCCAGGGAAACCGTTNAAAAGGCCCGCGGTTGCTTGGGCGTTTTTCCAATAGGGCTT
NCGNCCCC

Sequence 2586

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACGCGGGGGGATT
TCCGCTGAGTGACCTTACAAGTCCTTCTTGATCCTGAACTGGGTTAGGTGCCGCTGTTG
CTGCTCGTGTTGGATCTAGAACCCTAGCCAGACATGGGACTGGAGGACGAGCAAAAGATG
CTTACCGAATCCCGGAGATCCTGAGGAGGAGGAAGAGGAAGAGGAGGAATTAGTGGATCC
CCTAACACAGTGAGAGAGCAATGCGAGCAGTTGGAGAAATGTGTAA

Sequence 2587

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTT
TTTTTTNGGGTATGAAAACCTAGGGACTAAAATTAATATAAAAATTGGCATAATGTTGGA
TTGAATCTACATTTTGGCAGAAGTTAAACATTTCCACATAATGTCAAAATTATACATCAT
GCAGTTCTGTTTTTTGTTTGTATTTGTTTTGTTTTGAGTCTGGCTCTGTACCC

TABLE 1
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AGGCTGGAGTGCAGTGGCGTGATCTGCAACCTCTGCCCCCGGGTTCAAGCGATTCTCCT
GCCTNAGCCTCCCGAGTAGCTGAGATTACAGGTGCGCGCCACCACACTTGGCTAATTTTT
GTATTATTAGTAGAGACGGGGTTTCGGCATGTTGGCTAGGCCGGTCTCTCCTGACCTCAG
GGGATCAGCCC

Sequence 2588

TAGGGCGAATTGGAGCTCCCCGCGNGGCGGNCGNNGNACANAATAANGCCTGTCACATA
TTAAGTNTGTAATAACGCATTTATTATTACTTATCAGGGTATGATTTATGAATTGNGGAA
CCTGNGATTATGGGAGAGTCTGGCTTCAATCAAGGGCTGAAATTCATTTCCACTGACAT
CTTTTNCCTTCCCCATCCCCGATTCTGTCCTGCAACAGGGTAACAAGAAGGGGCCCTTAG
GCCGTTGGGACTTTGATACCCAGNAAGAATACAGCGAGTATATGAACAACAAAGAAGCTT
TNCCCAANGNTGCATTNCAGTATGGTNTCAAATGTCTGAAGGGCGGAAAACCA

Sequence 2589

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATAGTGTGCGGAACCTCA
AATCGGCATTTAGATAGATCCAGTGGTTTAAACGGCACGTTTTTGCCTATAAAAAAGTG
CAAAAAAGATGTGGTTTACAAGTTAAAGCTACAGAATCCCTTTTGTCTGAATTGCACCA
GTTTTAAAGCCTCTGGACAGAGCAGTATTTCTGTTTAAACCTTTGTTTTCTTAAAGCTT
ACAGTGTGTTGGCTAATTCTCCTCCCTTTTTACAAGACGGGGGCCGAGGGTGGACACTG
GTGGCAGGTTAAGGGATACTGTCACTTTAAGAAGCCTGCAGATTGAAGTGTAACATGGA
GAAATTAGGGGCTGATTTTTTAACTGTGTGAGATATTAACCAGCCGCCCTGTTATAAAA
TCAGGGAAATCCAAACAGCGATTTACACCCGATTAAACCCCCCTTTATATATTTTTTACA
AAAATACACTGGGGAAAATAATCNAACCGNTTTCATCTCTCTTGGCTTTTTTGGTTTTT
AA

Sequence 2590

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTCTTTTCTTTTCTT
TTTTTTTTTAATGTGAGACAGGATCTCATTCTGTTGCCTAGGCTGGAGTGCNNGGGCGCA
ATCTCGGCTCACTGCAACCTCTGCCTCCTGGGCTCAAGCAATTCTCCACCTCAGCCTCC
CAAATAGCTGGGATCACTGGCACAACACCACATGCCAGCTAATTTTGTATTTTTGTAG
AGACAGGGTTTACCATGTTGCCTAGGCTGGTCTCAACCTCCTGGGCTCAAGCAATCCTC
CTGCCTCGGCCTCCCAAAGTGTGGGATTACAGATGTGAGCCACCGCATCCAGCCCCACA
CCCTCATTTATACCAATTACCTGCCAGTAAGTGTGGACTTTTGTCTCCTCACCCTGCT
CTGATCTGGAAGGAGAGGGATTATGTTATAGCTTGTGAGCACAAGTCCCAAGTTCAATAT
TTCTGCGGCAAAAACCTTCTTCAAAAAATAAATGTAC

Sequence 2591

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCCCTCTTCCCGCTGAAG
GGAAATTCACAGAAGCTATAGTTGATGCAGAGCCGAAATATCTGATAGTTGNGCGACCTG
CTCCACCTCCAAGTCAAAAGAAGTCATGTTCAAGTAAACTCGTTCTCGAAACCTCTGC
AGCTGGTGGTTGGCACTCTGACACCGAGCTCGGTCTTCTGTGATGGGGTTTCTCATCA
ACCCACACCATGACTGGACATTGCCAAGTCACTGTCCAATGACAGATTTTATACAATTC
GCTATCGAGAAAAGGATAAAGAAAAGAAGTGGATTTTTCAAATCTGTCCAGCCACTGAAA
CAATTGTGAAAACCTAAAGCCCAACACAGTTTATGAATTTGGAGTGAAGACAATGTGG
AAGGTGGAATTTGGAGTAAGATTTTCAATCACAAAGACTGTTGTTGGAAGTAAAAAGTAA
ATGGGAAAATCCA

Sequence 2592

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACGCGGGGGCTG
ACTCCTTTTTCGGACTCAGTCTGCCTGCACCCATGTGATTAAAAAGCTTTATTGNTCACA
CAAAGCCTGTTTGGTTATCTTTCACACAGACATGCGTGACACTTGGTGCTGAAGACCCG
GGATGGGGGACTCCTTCGGGAGACTGGTCCCTGTCTCACCCTCACTCCATGAGGAGAT
CCACCTACAACCTCGGGTCTCAGTCCAACCAGCCTAAGGAACATNTNACCAATTTCAA
TCAGATCTTGGCTTAGTGGCTGAAGACTGATGCTGCCCAATTACCTCGGAAGCCTCCTGG
ACCATCACAGATACTTTGAGTAATCTCTTATAGTGGAAGGATGCAAAGTTGGAATAA

Sequence 2593

TABLE 1
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CCGGGCANGGTACCATATGTTTCAAAGTAGCTGTTTCATCCACAGATAAAGAGATCAAGAA
ACTCTCATATACATACTAGGAAATATTCTCCAGCCATCAAAATAATGAAGCAGTGTCA
TTTAGAGCAACACAGATGAACCGCGGAGACCTGCCTCCTACTCCACCATCACATGGAACC
CACCCTGCTTCTCCGAAGCTCGCTCTGACCACGCCGCTGCTGCTGCAGGGGCGCTCGCAG
GAAGTGCAGTCTCCCCCGGTACCTN

Sequence 2594

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGGTATGTTTTGTCTTG
AAAAGAGGTTTTCTAGCTAGAAATTCGGGGGCCAGAAGGTCAAGGCTCCAGAGATCCCCT
TCTCATCATCCTTCAGTTGTCTGAGGAGACAGAGGATCACATGTGTACAGTGAGTGCTG
ATTCCCCAGAATCTGCAGTCTTAAGCTCCCCTGCTGACGCACACAGCCAGTTCTCTGCTT
CATATTCATGTGACCCACTGTGAAGTGACAGGCAGCTGCCAATTCTGTCATATAAGAAGC
AGCTCTGCCCATGCAACTTTGAAAGTTCCTGCACTTCTCCATAGACTGCTCCTTCATGGA
AATAAACACATCATCACACTGTGGGTGCCTAAGCTAAGTTTGTTCAGTTTGATGATGC
CCAGCTCCTTTTCAACTCAGCCTTAATTGGCACTTA

Sequence 2595

CGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACTTTTTTTTTTTTTTTGA
GACAGAGTCTAGCTCTGCGCCAGGCTGGAGTGCAGNGGCACCATCTCGGCTCACTGCAA
CCTCCACCTCCTGGGTTCAAGCAAGTCTCCTGCCTCAGCCTCCTGAGTATCTGGGATTAC
AGGCACATGCCACCACGCCCGGCTAATTTTTGTATTTTGNNGGAGACGGGGTTTCACTT
GTTGGTCAGGCTGGTCTCAATCTCCTGACCTCGGGATCCATCTGCCTGGTCTCCCAAAG
NGCTGGGATTACAAGGCGTGAGTCACCGTGCCCGGCGAGAAGCAACTCTTAAATACTTT
ATTCCTTCTCTAGGACCCCTTTAAATGGTGAAATGGGCAGATGAGTAGCAATAAGTGGA
CCTTTGTTACTCTTCTGAGTTAGAAAAATTCTAATTTAAGTACCTCGGCCGNTCTAAAAC
TAAGTGGATCCCCCGGGC

Sequence 2596

ATTGGACCTNCACCGCGGTGGCCCGCCCGGGNANNAACCATAAACCGTNGCAGNCTCAGC
ANATATTTTCCCTTCCCTTAAGTCAGTAACCTTTCACCTTTTCACTTACAGGAAGCACTTTA
CGGCTTCTCTTTAGCATATGCAAATTGCCAGCATTACCACTCTTGGACTTTGGGGCCACT
GTTAAGTAAAGTAAGGGTTACTTGAACATAAGCACTGTAGGCCGGGGCATGGTGGCTCAC
GCCTGTAATCCCAGCACTTGNGGTAGGCCAAGGTGGGTAGATCACCCGAGCTCAGGGAGT
TCGAGGACCANCTGGGCCAACATGGTGGAACCCCACTTTACTAAAAAATACAAAAA
TTAGCCAGGTTTTGGTGGGCTGTATACCTGGNGATGCGCANCCTATTCAAGGAAGGGCT
ANAGGGCAGGGAGAAATCGCTTGGAACCTGGGGAGGCCGGNANGTTGCAGNTGAGCCCAA
GAATCCGTGGCCCACTGCACTCCAANCCTGGGGTGACAAGAAGCCGAGGACTCTGGNCTC
AAAAAAAAAAAAA

Sequence 2597

CCGGGCAGGTACTTCTTGATTTTCATCATACAAGACAAGCACAAAAGCACCAACCATGCCT
CTGAGAACATNGGACCATGCACCCTTGAAAAAGCTTTGCCTNCTTCATCACGAGCAATC
TTCCGCCAGCAGTCAAGCCGTGCCTGTGTACAGATGGGGTTTTGCCATGTGGACCAGGCT
GGTCTCGAATCCTTGGCCTCAAGTGATGCACCTGCCTCGGCCTNCCGAAGTGCTGGGATT
ATAGGTAGTGAGCCACACGCCCGGCTACAGAGTTGGGTTTTAACAGAAGAGGACCTTGAA
TGCTGAAGCTTNACAGGGCGGCCAACTAAGTCTGCTGATTTTTGCAAGACCACAGTGTAA
AGGTCGGATGTCCACCTGAAGAAGGGGTGGGTGCAACTCTCTGGGTGCTGCACACACCAT
GACCAAGCCTGGGCATGCAGCACCCAGCTCCCATNCATTCACTGTTGCTTTGTGAG
GTCATTTTGAGAGGGCTTTCANAGCCTTTAATGAGAA

Sequence 2598

AGGTACCTTTGACCCATCATCTTGGGAGGTGGGGAGGACCNCGAGGGNCCAGGCAGGGTG
TAGGGGAATGTATTAGNCCAANGAGATTTCCCTCTTCATCCGCAGCAGNGTATCTATTCT
ATACCTGGCTATGGGAGAAGACCCCTTGCTATGGGAGGGACCCCTTGCTATGGCCCTTTA
AGCCAGGCAGTGGGGATCTACCTGNGGCCCGGCCCTCCCTAAAGTCATTACATTGAATG
GGGGGATGAAGGNTCGGGACAGTGCTCATAAGAGCCCGAGTATTGAGCCCTAANCTGTG

[illegible]

TABLE 1

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GGATCCCCCGGGCTGGCAGGGAAATTCGGATATCNAAGCCTTATCGATACCCGNCCGA
ACCCTCGANGGGGGG

Sequence 2604

CTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAGCGTGGAGGGTTTAGGCAGCGTGTCT
GATTCTTTGCGGGACGGCGAGCGCATTTGTGCTTTGCCCGCCGCGGCCTAGGAGGCCTT
TGAGGCCGCGTAGTCGGTGTTTTGAACCTACTCTACAGCTTCTGGCAGGCCGTGCGGCG
CCCTGACCCGGCCTCACCATGTTGGTGCTGTTTGAACGTCTGTGGGTTACGCCATCTT
AAGGTTCTAAATGAGAAGAACTTCAAGAGGTTGATAGTTTATGGAAAGAATTTGAACT
CCAGAGAAAGCAAACAAATAGTAAAGCTAAACATTTTGAAGAAATTTACAGGATACAGCA
GAAGCATTAGCAGCATTACAGCTCTGATGGAGGGCAAATCAATAAGCAGCTGAAAAA
GTTCTGAAGAAATAGTAAAGAAGCCCATAAACCGCTGGCAGTAG

Sequence 2605

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTGGGTCTGAAGGGGTAC
TCAAGCGCTCTGCTATCTCTGCAGCTAAACGGGTGTCAGGTTTTCAGCTGCTACTAAAG
ATAATGAGCATAAGCGTTCACCGACCAAGACTCCAGCCAGAAAGCCTGCACATGTGACCG
TGTCTGGGGGCACCCCAAAGGCGAGGCTGTGCTTGGGACACACAAATTAAGACCATCA
CGGGGAATTCTGCTGCTGTTATTACCCATTCAAGTTGACAACTGAGGCAACGCAGACTC
CAGTCTCCAATAAGAAACAGNGTTTGATCTTAAAGCAAGTTTGTCTCGTCCCCTCAACT
ATGAACCACACAAAGGAAAGCTAAACCATGGGGGCAATCTAAAGAAAATAATTATCTAA
ATCAACATGTCAACAGAATTAACCTNTACAAGAAACTTACAAACAACCCCATCTTCGGG
ACAAAGGAAGAGCAACGGAAGAAACGCGAGCAAGAACGAAAGGAGAAAGAAAGCAAAGGT
TTTGGGAATGCGAAGGGGCC

Sequence 2606

CCGGCAGGTACTTTTTTTTTTTTTTAACATCTTTGTTTTTAAATAGAATGATAGAAC
TTTGCCAGTCTTTAAGATCTTGGCTTAATTTAATGTATTAATCTGTTTGTGCAACATAA
TACCACCATTTAAAAATGTTAGGGGGATGAGTTGCAGTTTTTATAATAGATTTTTTTTA
AAGTTTGGTATTGTAAACATTCACACCTCTGTCCCTCAAATGATAATTACCGTTTTAA
AGNGCAGNCATTTGNGGTNTAGAAATCTGTTTTGTTTTGCTTCCATTATTGAGTTCCTC
CTAAGGGAAAATTGGAGGAGAAGGGGACTGGAATATGAAAGCCCCAAATTCATATAAAAA
AGTTTGCAGTTNTAAGGTTTGATTAAAAAATAGNATATTATTAANGAAAAAATTTTTT
TCACTTGATGTTTTGGTTAG

Sequence 2607

ATATGGGCGAATGGAATCCCCGCGGTGGCGGCCGGGCAGGACTTTTTTTTCTTTTTTT
TTTTTTTGAAACTTCCTTTCTTAGTTGTTGTATTCTTGAAGAGCCTGGGCCATGAAGA
GCTTGCCTAAGTTTTGGGCAGTGAACCTCCTTGATGTTCTGGGCANGTAAGTGTTTATCT
TGGGCCTGCAATGAAGCCAGCCGAAGTCCATCCCTTGGGCAAGGGCCGGGCTTGTTGGTG
GGGTTTTTGAAAGAAGTTTGGGACCAAGGGGTCTCCTCAAGGGGGAAGCCGGGGGGG
GGTCTTCCCTCGGGCTCTNNGGCCGCTGCCATATTTCTTCTTGCCTTGGGCCGAACC
GCCTGCTTGAATACCTTGAATTTGTTTCTTGCCTTGCTTGGTTGTTTTACCTAAGGANA
TTCCCTCAATGGTAATGTGGTTTGGTAATTTAAACCTAATAATCCTTTGGGCTCAATT
TTCAATCCCACCTCTTGTCCAATCAAGCAAACCTTGNTAANGATTCTTCCCCAAAAATN
GAATTTGGCTGGCTTGGGCAAAGGGCCTTGAAGCAAATTCNATTGGTTTTAATCTTGCA
ACAAGCCTGAACTTTCTTTTTCAAGGGTCCCCACCATTTAAGGGAACATTTTNAATCA
AGGATGTGGAAATT

Sequence 2608

CGCGGTGGCGGCCGCCGGGCAGGTCAAACGATGTGTCCGTGATGACTGGTGGGGCTCATG
TAATCCCCACCTAAGAAAAGTAGAAAAGTGCAACTTTATCTTTAGGTTAATAAGTGCTGA
GAGATGGAGTTTTCTTCTCATTTTGATGGAGATGCCTAGAAAACCTCGCCTGACACT
CTTTGTCCAACGCAGGATAGAGAACATAGCAACAGAAAGGGTGAGGCAAAGGCATGGCT
GGTNAAGGCACTGCATGTTATTAAGGATGNGGGCCTGGTCTGTTGNTTCACATGT
TTTTCTNTTTTATACAGAAATAGGAATCTACCAGACAGTAATAAATGCCACTTCTCAC

TABLE 1

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AGAAAGTCTGACAGGCTTCCACTGCCTCTGAGAGAACAACAACATGTTGGCTCCATAACA
TAAAGAAAAACAATGCTGGGTGCGGTGCGGTGGCTCGTGCCTATGATCCCAGCACTTTGG
GTGGCTGAGGCAGGAGGACTGCTTGAGCACANGAGTTTGAGACCAGCCTGGCCAACANGG
CGAAACCTTCTCTNTACTAAAAATNCAAAAAAAAAAAAAATTAGCTG

Sequence 2609

TCACCGCGGTGGCGGGCGGCCGCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTGTG
GAGACAAGGATCTTGCTCTGTCACCCAGACAGATGTGCAGTGGCATAATCATGGCTCACT
GCAGCCTCAACCTCTGGGGCTCAAGCAATCCTCCTGCCTCAGCCTCCCAAGTAGCTGGGA
CCACAGGTGTGCACCCCCACTCCTGGCTAATTTTTTTTATTTTTTTGTAAAGATGGGGNCTT
GCTATGTTTNCCTAAGGTTAGTCTNAACTCCTGGGGTCAAGCGATCCTCCTGCTTAACT
NCCAAAGCACTTGCGATTGAGNGTGAGCCACCAAGCCCAGCCCCAGCACCCTTTTAACT
TAGCTGCATAATCTTGGGTAACTACTAACCTTTCCAAAGTACCTCGGCCGnnnnnnnnnn
nnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnn
nnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnn
nnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnn
NATTGCCCGCTTGGNGNAA
TCATGGCAAAGCTGTTTCCGGGNGAAAATGNTTATCCCGTTACAATTNCCNAAANATAC
NAACCCGGGAGCNTAAAGNGTAAAGCCNGGGGGGCCANTGGGGAGCTAACTACAATTAAT
GNGTTGGGCTACTGGCCNNTTCAATGGGGAAAACNGGNGCCACTTNTANTGAATCGNC
ACCCCCGGGGGAGGGGGTGGTTTTGGCCTTTCTTCTNGTAATANTNNTNGCCGGGGT
NG

Sequence 2610

GCTCCCCGCGGTGGCGGGCCCGCCCGGGCAGGTACAATGAGATGGATACAATTAGTNAAAC
CTTAAATTAATAAAGCTGTAGACAACAGAAGGNAACTGGAAATCCATTTACAATTCAA
AAGAACTCACTAATAACAAAATTAATGTTTCATCAACTTCATTTATAATCCATTTNGGCCT
ACATNGCNTAACTAAANTGACACATGTCCCCGGGGGCTGCAGGCGTNGCNCCAATCTTCG
CTCTGAGGNGCTNTCTTAACCGNNANACCCTGGAAGCGGGCAAGTCTCTTGCTGTGTGCG
GACCTTGACAGNCCCTGGCCCTTCGCCACCATGGGAATACCTNNGGCGGTTCTAGAATA
GGTGGGATCCCCGGGCTGNAGGGAATNCNNTATCANGCTTATCGATNCCGTCGACCTTG
AGGGGGGGGCCCCG

Sequence 2611

CCGCGGTGGCGGGCCGAGGTACCAAGTGTGGGAAGATGTTGAGCAACTGGAACCTCATGCGT
GGCAGGTAGGGATGTAAATGGCACAAAGACTTTGTAAATACTTTGGCAAATTNNNAAA
AAGNAAACACATAGCTACCATACAACCCAGCCATCCCACTCCAGTATTTAACCAGGTGA
AATGAAAACCTTATGTCCAAACAAAGACTTGTACTTTTCTATGATGACCCGGGCGGCTTC
TTTAACGNTTTTNGGTGCGAACCNGCCCATGTTGGCGGGTCTTGGTAAAAGACCCCG
CGTCTGCCCGGGCGGCCGN

Sequence 2612

GGAGTCCCCGCGGTGGCGGGCCGAGGTACANGAAAGTCTAGATGATCTTGTAGTGCCAG
AAAGTAAGAAAGTAATAAAAAGATGACAGGTCTGTACAATGATACAGAAGCCAATGTGA
CAAAGCTCTCAATAGTTAAATCTCGAATTTGAGTAGTAAAAGTGACACAGTTTATAGATTA
TAACCCAAAGAACTAAATAAATATCCATGAGCCCTATTGATATAAATGACAATTAAGGGT
TTTTGTTTTGGTTTTTTGGTTGCTTTGGTT

Sequence 2613

GAAACCTGTGCTGCCAGCTGCATTTANTGAATCGGCCAACGCGCCGGGGAAGAGGCGGT
TTGCGTATTGGGGCGCTCTTCCGCTTTCCTCGCTCACTGACTCGCTTGCCTCGGGTCC
GTTCCG

Sequence 2614

GGAGGCGGGCCCGGGCAGGTACTTTGTTTCTTTTTTTCTTTTTCTTTTTTAAGACA
TGCTCTTGCTCTGTTGCCAGGCTGCAATGCAATGGTGCCACCTCGGCTCACTGCAANCC
TCGACCTCCTGGGTTCAAGCAATTTTCTGCCTCAGCTTCCAGGTAGCTGGGATTACAGG
CGCCCCGCCACACACAGGCCACATCTATGTATTTAGAGACAGAGTCTTGCTCCACCTGG
GAGACAAAANCNGACCTCCGTTTAAAAAAAAAAAAAAAAAGGGAAAGGAAAGGAGGAATTT

[illegible]

TABLE 1
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GCAGGCTTAGGGAGCAGGAAAGCATACAGGTGTAGCAGCCTTCCAGCTGATCCCCATGC
CCTGCTGCACCTGGAGGGCTGGAACAAGCTATTCTCATATTGGGGAAAAGGGCTGA

Sequence 2620

CTCCCGCGGTGGCGGCCGGGTACTTNGTTCCTTTTCTTNTTTTTTTTTTTTTTTGAGA
CGGAATCTTGCTCTGTACCCAGGCTGGAGTGCAGNCGCGCAATCTCGGCTCACTGTNNG
CTCCACNTCCCGGTTACGCCATTCTCCTGCCTCAGCCTCTNGAGTGGCTGGGACTACA
GGTGCCACCACCACGCCTGGCTACTTTTTTTGTATTTTATTAGAGACGGGGTTTCAC
TGNGTTAGNCCCGGANAGANTNGATCNCCTGACCCTGGNAACTGGCCCCCTTGCCCTCT
AACCTTTTTGACCCCTAAGGGAANGTACTGGAATATTGTNTTGGGNNCCCATGCTTNTG
NGGCAAGGCTTAAGGGAGCAGGAAAAGCATACANGGTGTAGCANCTTTCCAGCTGATCC
CCATGCCCTGCTGCACCTGGAGGGCTGGAACAAGCTATTCTCATATTGGGGAAAAG

Sequence 2621

NCCGCGGTGGCGGCCCGCGGCGGACCTGTTTTATCCCAGCTGAGAGGCAAGGAGAACC
TTTGTTCCTTAAAAAATAAGCTGGTTTCAGCCAGGTGCGGTGGCTCACGCCTGTAATCCC
AGCTCTTTGGGAGGCCGAGGCGGCGGATCACCTGAAGCCAGGAGTTCGAGACCAGCCTG
GACAACATGGTGAGACCTTGTCTTTATTAATAAATGCAAAAATTTGGCCAGGCGCCGNGGC
TTTACCCCTTATTTCCAGCACTTTGGGAGTCCCANGCAGGTGGATCACAAAGTCAAGAA
ATTGAGACCTTCTTGTTCACACCAGGGAACCCCTTCTTTCTTAAAAATTTNTAAAAAC
CAAANTTGCTGGCATGGNNGGGGGCACCTGTAGTCCTAGCTACTTGGGAGCCTGAGGCANG
AGAATGGTGTGAACCCGGGAGGCGGAGCTTGCACTGAGCCCGAGATCGCACCCTTGAC
TGCAGCCTGGGGGACAAGAGTGAGACTCCCTCTCNAACANAACAAAACAAAATTTNCC
NAGCGTGGTGCGAGGCCCTTGAGGCANGANGAATCACTTGAACCCCGGGG

Sequence 2622

GGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGANGACCTAGAAAAAGGAG
GAAAGGAGGAGAGGCAGATAATTTGGATGAATTCCTCAAAGAATTTGAAAATCCAGAGGT
TCCTAGAGAGGACCAGCAACAGCAGCATCAGCAGCGTGATGTTATCGATGAGCCATTAT
TGAAGAGCCAAGCCGCTCCAGGAGTCAGTGATGGAGGCCAGCAGAACAACATAGATGA
GTCAAGCTTTGCCTCCCCCCCCCTTAGGGAGTTAAGCCAAAAGCTGGACAAATTGCCCA
GAGCCTGTGATGCCTTCTAGCAGGGAGAGCAGATGGAAATCCACCTTGATAGAGGCTTCC
CCAGAAGAACCTCCAAATCTGTACGCTNATACCAGAAGTTAGAACTTCTGCCAGAAAAA
AAAAAAAAAAAAAGTACCTGCCCC

Sequence 2623

TGGAGCTCNC CGCGGTGGCGGCCGAGGTACTTCNTTTTTTTTTTTTTTTTTTTCTTATTT
AGGGGAGAACTTTTACCTTTTCACTTAATGCACTTCTCTTTGGTGTATCTGTNTTNGNG
CAACACTACTCTTGCTCTT NAGGGCCATTAANTAAAATAAGAGTTACTCAGGCTGGGTGC
AGTGGCTCATGCCTGTAATCCCAGCACTCTGGGAGGCCAAGGCGGGCGGATCATGAGGTC
AGGAGTCAAGGGCAANCCGGCNAAATNGGGGAAACCCCAANTTTTCTAAAAATACAAA
ATTCNTCCNGGCAATGGGGGCGNNATGCCTNAAATCCCAANANACCCTNAAAAGGCTNGG
GNCNGGGAAAAANTTTNTAANCCAGAANCCCCGGGNGGNGGNGGNGTGNANATANGCC
CAATANCCCCCNTTNNCNTNTNCNCCCCGGGGAANNNTTGAANNCCCTTTNTNTNAAA
AAAAAACNAAAAAGGNTNTCNCTNTNCCCCCNNGGNAANNNGANACCTCTTTTTTTT
CTCCNCCNNTTTCTNCTGGGGGGGGGNGAATNTTANTAAAANAANCCNCCCCNNGGN
GANANAATNTNANTTTTTTTTACCCCCCNCGGGG

Sequence 2624

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACATACTGCTTTGATTGATAT
ATACAAAACACCACCTNCTTTTGATGGAAACGGGGCCAGAGCAGATCCTGNGATGAGG
ATTAATGTGCAATTCATGTAATNTATANCACAGTNTTCAGGANGTGCTCACAGGATAAAC
CAATGAGGGAGNNGGTT CAGGGGCGNGGACAGGGAAGGGAACCTAACTGNGCAAGGGACNN
TTTNGGGGCANGGNNCGGNTTAAGCCTANTCCGTTGGGAGCTCTGGACATACATNAGG
CTTCAAAGNTNGGNNCAACTGGGNGCAAAAAACCTGGGCTGTTTATGCCTGCACCCCTT
TAGGCACCCTAAGCCCTACTTTGAAGTNTTTATTTAGCTCTCAATGTGTTGAACCTATA

TABLE 1
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AGGAAATTAAACGTTTCATGAGTTAAG

Sequence 2625

TCCCCGCGGTGGCGGCCGAGGTACAGATAATTCAAATCTATTATCTAATGTATTAGGTAA
ATTTCTATTTGTTCTATACTTTTTTTTTTTTTTTGAGATGGAGTCTTGCTNNGTCGCCCA
GGCTGGAGTGCAGNGGTGCAATCTTGGCTCACTGCAAGCTCCGCCTCCTGGGTTCATGCC
ATTCTCCTGCCTNNGCCTTCCAAGNAGCTGGGACTACAGGTGCCCGCCCCGACACCTGGC
TNATTTTTAAAAAATTTTTAGTAGAGACAGGGTTTACCGGGTTAACCAGGATGGNCTC
NATCTCTGACCTCGGGATCCCGCCNNTTGGGCCTCCAAAAGACTGGGGATTACAGGGCG
GTGAGCCACCGACCCGGCTATTGACATTTTTTAAGGGTCAAGATTTCTTTTGTGTGTC
TAGTAATTCGTCTTTTATTGCAAAGATAATTTGCTTATTNGACTNAGAAAAATGATTTGT
GGGCATACAATATTGTATGTGGTACCTGCCCGGGCNGCCGCTCTAGAACTAGNG

Sequence 2626

TTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGATAATTCAAATCTATTATCTAATGTAT
TAGGTAAATTTCTATTTGTTCTATACTTTTTTTTTTTTTTTGAGATGGAGTCTTGCTCTG
TCGCCCAGGCTGGAGTGCAGTGGTGCAATCTTGGCTCACTGCAAGCTCCGCCTCCTGGGT
TCATGCCATTCTCCTGCCTNNGCCTTCCAAGTAGCTGGGACTACAGGTGCCCGCCCCGAC
ACCTGGCTAATTTTTAAAAAANTTTTTNAGGAGAGACAGGGTTTCACCCGTGTTAGCC
AGGATGGNCTCGATCTCCTGACCTCGGGATCCCNCCNNTTGGGCCTCCCAAGGACTGGG
GATTACANGGCGGTGAGGCCACCGCACCCGGNCTATTGACATTTTTTAAGGNITCAGATT
TTCTTTTGNNGTCTAGNAATTCGTCTTTTATTGGCAAAGATAATTTGCTTATTTGACTT
AA

Sequence 2627

GCTCCCCGCGGTGGCGGCCGNGGTACAGATAATAACATCTGATATCCACATGGGGTCTGG
AGGTGCNAGCCACCTTCCTTCATCCCACGGTCTCACAGCAGCCCTGGAAAGAGGCTGCT
CTCTGTTGGAGGCTAAGGGCCAGTGTTGGAAGGAGCTCTGGTGGAAAAGTGTGGTCTGCA
TGANGGGCTCCCATGAATNAGAGGATAGGGGTGGCNGGTACCTGCCCG

Sequence 2628

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGAGGTCCCGGCAGCAGCAGGA
AGAAGACGGACCCCGCATGAGGGCGGCGGCANGGAGCACCTTCATGTTGCGTTCGGAGC
CCCGCGTACCCTATGGACAGTTGTGTCCCAAGGAAGGATGAGAATAGCTACTGAAGTCC
TAAAGAGCAAGCCTAACTCAAGCCATTGGCACACAGGCATTAGACAGAAAGCTGGAAGTT
GAAATGGTGGAGTCCAACCTTGCTGGACCAGCTTAATGGTCTGCTCCTGGTAACGTTTT
TATCCATGGATGACTTGCTTGGGTAAAGACATGAAGACAGTTCCTGTCATACCTTTTAA
GGTATGGAAGAGTCGGCTTGACTACACTGTGTGGAGCANGTTTTAAAGAAGC

Sequence 2629

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACCTCATCCCCTCAG
TGACTAAGAATTGCAGNATTTAAGAGGTAGCAGGAATGGGCTGAGAGTGGTGTGCTTT
CTCCACCAGAAGGGCACACTTTCATCTAATTTGGGGTATCACTGAGCTGAAGACAAAGAG
AAGGGGGAGAAAACCTANCAGACCACCATGTGCTATGGGAAGTGTGCACGATGCATCGGA
CATTTCTGGTGGGGCTCGCCCTCCTGTGCATNGCGGCTAATATTTGCTTTACTTTCCC
AATGGGGAACAAAGTATGCCTCCGAAAACCACTCAGCCGCTTCGTGTGGTTCTTTTCT
GGCATCGTAGGAGGTGGCCTGCTGATGCTCCTGCCAGCATTTGTCTTCATTGGGCTGGAA
CAGGATGACTGCTGTGGCTGCTGTGGCCATGAAAACGTGGGCAAACGATGTGCGATGCTT
TCTTCTGTATTGGCTGCTCTCATTGGA

Sequence 2630

CCGCGGTGGCGGCCGCCGGGCAGGTACAGATAGCAAAGACTGGGACCACAGTGGAGGGAT
GCCTAATCCAGACAAGGGCAGGAATAGGCAGGGAAGGCTTCCTAGAGGAAGTGATTTCCA
AGCTGAAACTTGACAGATGGAACAGAAGNTAGCCAGAGATGGGAAAACATTTTTGGTCA
ATGGAAGANCAGGTGGTTGAGATAGAATCTGACACATGANAGCAAAAAAAAAAAGTCCANN
GNTGGGAGAATACNNGTGAGAATAAGACAATNTTAACTGGCNATATAAGTAAGNGATC
ATCACAAGGCTTTGTAGGACATAGTAGGGAGTTTAAGACTTTTTATTCTGAGGGCAATGG

TABLE 1
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GGAATCACAAGAGGGAGTTAGGCACTNTACACAACTTC

Sequence 2631

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGCAGGCCTCCTACACCT
ACCTCTCTCTGGGCTTTTATTTGACCCGNGATGATGTGGCT

Sequence 2632

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGTGGATATCATACGAAAGTGT
AGTTTCAAAGGAGATGGACAAACGATACCTACAGTTTGATATTAAGGCCTTTGGNGAAAA
TAATCCTGCCATTAAATGGTGTCTACTCCAGGCTGTGACAGAGCAGTAAGACTAACGAA
ACAAGGGTCAAATACATCTGGATCTGATACACTCAGCTTCCATTGCTGAGAGCTCCTGC
TGTTGATTGTGGAAGAGACACCTCTTCTGCTGGGAGTGCCTTGGTGAAGCACATGAGCC
TTGTGACTGCCAAACATGGAAGAATTGGCTGCAAAAAATAACCGAAATGAAACCAG

Sequence 2633

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTTTTTTTTTTTTTTTTTTTTTTGAGA
CGGAGTCTCGCCAGGCTGGAGTGCAGGGGCNCAATCTGGTCTCACTGGNNGCTNNGCCT
CCCGGGTTCGTGCCATTCTCCTGCCTCANACTGTCGAGTAGCTGGGACTACAGGCACCCA
CCACCAAGCCCAGCTACTTGGGATCGCATGAGCCTGGGANTTTGGGCGNGCAGTGAGCCA
TGATCACTCCAGCCTGGGCAACAGANNGAGACTCTNTCACAAAAATTAACTTTACTTAAT
TACTTTTATTATTGNCATAATCGCTCCATTTTATTGTTGTTTGTGTTGTTGTTGNAACCAA
ATTGTAACCATTATNTTTTGTGCAACCAAAAAAGTTTCTGAGACAGGTCTTAATT
TATTTAGAAGTTTATTT

Sequence 2634

TGGAGCTCNCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTGTGATAAG
GCTAATATTTTTTAAAGGAGGCACAGTGAATTTAAGACATTGACATTTATAGCCGTAGC
TCGACGCTTACTCTTGGAGGCCAATTATCATCCCTGTCCATCTTGTAAGTGTGATGTCT
TCGTCATCTTTAGACCCAGCTAACTGTGCCATCTCCTACTCCTTTCTGGCCTTCTCG
AGTCTTCCAACAGTCGGAATTCGAGGGACTTTTACTCCCGAGCCCGTGGTGGCTGCC
ATCTTGCGTGTGCTTGAAGGCCGCCCTTCTCCCCGCGTCTGCCCCGGCGGCC
GCTCTAGAACTA

Sequence 2635

CTCCCCGCGGTGGCGGCCGAGGTACTCTCCGCCTAAGTCCATAGAGAGGCTAACACCCT
TCTAGTTTATTAGTCTTTGNTAAACCTATGAAATCTGAATNTAATGGCTANNTTATATG
CANNGTGGAGGNCACNCAAAAATGTTTCTCTCAACAGCTGTGATAAGTATAGGCTTATTT
TGATGTCTAAAGATCTGNTACCTGTATCTGNTTTCATCTTTCAACACAAATTCATGGGAA
NNTTAACATGNNCCTGTGNTCNGGACAAGTGTGCATGAGAACATCATNCACTAAGTTTA
TCATNAAATGGGAAANGAAGCAGACNTTTTAAAAAGCACCCAAACCGCGCTCTAGAAC
TAGTGGA

Sequence 2636

AGGTACGCGGGGGCTGACTCTCTCTCAGATTAGCCAGTTGCACCCAAGTAAATAAA
CAGTCTTGTTGCTCACACAAAGCCTGTTGGTGGACTCTTTCATATGGACTCATGTGACA
TTTGGNGCCGAAGACCTGAGACAGGAGGACTCCTTTGGGAGACCGGCCCTGTCTCGCC
CTNTTTCATGAGATCCACCATGACCTTGGGGTTCCTCANCCCAGCNCGAANGAACTTCT
TCACCAANTTTTAAATCGGGGACCGCAAAGCCAACAAGAATGAAGAAGTGNCCAGGTATG
GTGGCTCATGCCTGTAATCCCAAGCACTTAGGGAGGCCGAGGAGGAAGAATTGCTTGAGG
CCNAGGAATCCCANACCAGCCTTGGACAACATGGCAAAATNCCANTNTTTTCAATNANA
TTAAAGNAAANAAATTAAGTTACCTGCCTNNGCGGGNCGTTCTAGNAACTAGTTGGANC
CCCCCGG

Sequence 2637

TTAGGGCGAATTGGACTCCACCGCGGTGGCGGCCGCCCGGGCAGGTACACGGTCAGTCCG
GGTCTTAAGGGCGCAGGGTAGGGCATNCCACTGGGAGTTCAAAGGGGAAACNAAGATGGT
TCCCACTGCTGCTCAGACAGTGTGCTAAAATTCCTCACTCATTTTCAAGTCTTGTTT
ACATAATGGCTTTTAAAGCAACTTTTGTTAATGCTNCTGATNCTTTAATNCAACTATTA

TABLE 1
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ATGTNCCATTTTGGTGACATCTGGGTTTTTCATACANAAAAAAAAAAGTCAAAAAGGGGA
AACAAAAANATATTTACACATTTTATATATAAACTTAAAAACCTTGACCTTN

Sequence 2638

CGAGGTACTATGGCAGTTTTGCCTCAGGTGCTGAACATTTCTCAGCCCTGGCTAAAAGGG
AGCAGCACAGGGAGAGAAAACAGGATAGGAAAGCAGAATGGCGAGCAGCCTATGGCCCAGG
GCCTGTAATCCCTTCCCAAGACTAGCTGCTCAGGGTGGTGCAGGGACAGGACCAGACCCT
GCGCCTATTTCTGCCTTCTTTCCCTATAGGGAACCTCTGTAGGCTGAGCCACTGTCTCTGC
TCTTATGACATTATATCTTGTGCCTTTCTCCTCAGCAGTGAGCAGTGAGCTACTCCTGGC
CCAGGCCCTAGGGGAAATGGATCAGTCTTTGAGGTTTCTATTTGGGGAGGGGAGTACCTG
CCCG

Sequence 2639

CCGCNTGGCGGCCGAGGTACTTGTTTTTTTTTTTTTTTGGAGACAAGGTCTCGCTCTGTCA
CCCAGGCTGGACTGCAGTGACATGATATCGGTCACTGCAACCTCTGCCTCCTGGGTTCAA
GGGTGATTCTCGTGCCTCAGCCTCTCAGGTAAGTGGGATTACAGGCATGCACCACCATGC
CTCGTATTTTTTTTGCCTGTGTTTTAGTAGAGACGTGTTTCACTATGTTGTCCCGGGCT
GATCTCCAACCTCTGTAAGTCAAGTGATCTGCCCGCCTCAGCCTCCCAAAGTGCTGGGAT
TATAGACATGAGCCACCACACCTGATGTCTGATGCTTATTTATTATGTGACCTTAGCGAA
GTGTGGTAGTCATTAAGTGCTGGTCTATCTCTATACCTTCCCCAGGCAAGGTAGGATTGC
ACTTNCCGCTCCACTTGTTGATTAGGTGGAGCCATGTGACTACTTT

Sequence 2640

TGGGCTCCCCGCGGTGGCGGCCGAGGTACTAGAACTTTCCAAGGAGTCTTGGGTGTGTA
GCCAAGAGGAGCCATGAGCTATGGACTCCTCAAGCACGGGAAGAGGAGGTGTGTGCTGAG
AACAGAGAGGGCCCTGCCCTCTGTCCACTAGCGAGAATCCCTAGCTGCCCCAGCCCAGTCT
TTCTCCCCGGCATTACAAAACCTTTGCAAGCGTTGGTCCAGGGCCCTTCTCCAGATCTGTT
NCAACTTTGNAGAGTGAAGGGCTTGAGCATACGGGGGAAGAGAGTCTGCATNANGTTAGG
GGGAAAACCTTTTAAAGATACCCTCATTGTGTCAAAAGAAGTGTGCCAATCTATTTTTGT
ATCAGCATTGGGAAGNGCACTTTCCCTGGGGCCGTGTGGGTGNGTGAATGTGCAAGTGT
CTGAGAGATACTGCATCAAGCCCTAGACCCTCAAGAGCCAGTCCCGCCCTTTTACAGAGC
ANTCCCTTATCCTGGGGCCATGGGTGAGGCTGACCTTCAA

Sequence 2641

CCCCGCGGTGGCGGCCGANGTACGCGGGGACTTCGGGCTTGTTGCTGGTGGCGTNNGA
GCCNAGCCCGGACTGGTCAGGATNGATCACGGACGTGCAACTCGCCATNTGNNGCCAACA
TGCTGGGCGTGTGCTCTTCTTGNNTGTNGATCTCTATCACTTACGTGGNCGTCAAACA
ATTCAAAGAATGCANGAATGAAAGTTGGCGCTTTCTTCCGCCCCANGGTCCCAGGACATT
AGTCTGNNGCANGATNGAGGGGTNTNGAAGGGGCCTTTCACTTAACTTTATTCCTTTT
ACCCTTCACAACATACAAAAGGCAACTTACACCTGGGATTTTNCAAAACAACCTTTTAT
TTCCCTCAGANGNCTTTCNTTAAATCCCTATGGAACAAAGAANGCTNGNCCACTTGAANT
AGGGGCCCNAGTATAGGGGGCTTTGCTTTTCTACTTCCNTC

Sequence 2642

GGACTCCACCGCGGTGGCGGCCGAGGTACGCGGGTATCTGTCATAAGCTCAACATCTGTAG
ATCAGAGGGCTACAGAGGAACCAGTTTTAGAAGATGAACAACACCTNTTAGAAAAGAAA
TTGCCTGTNACGTTTTGNAAGATAAAGAAGCGGGGANAACCTCGAACGTTGCAACCTGN
AAACTGGGAGAAACGANGGCAAGCTCTNTTGAACAAGCAAGCTGCAAGGGAGCAAGGNN
CGCCTGNCCCANCATGGAGCCGCGCCNNGNANGGAAAAGGAAGGAGCGTGAGCGCCAGG
AGCAAGAAGCGCAACAAGACAACCTTGGAACTNNGGGAAGCAACTGGGAAANGCATGCTGT
NAGCTANNAACCTGCANTATNAGAGGGAGGAGAGGGAGGAAAAGAAATTNGANAGGCGAA
GAGGCTNGCAAACTGGGAACTTGAAAGGCAACGACAACCTTNGAGTGGGAACCGGAANT
CGAAGGCAAGAACNTNCCTAAATCAAAGAAACATAGGAACAAGGAGGGACATAGTTTGNAC

Sequence 2643

CAATTGGACTCCCCGCGGTGGCGGCCGAGGTACCTTATGTAGCCCAAGAAATTCAAGAGG

TABLE 1

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AAATTGATGGGGCTCCTTCAGGAGCAGCGTGCAGATATGGACCAGTTCACTGCCTCAATC
TCAGAGACCCCTGTGGACAGTCCGGGTGAGCTCTGAGGAGAGTGAGGAGATCCCACCGTT
CCACCCNNTCCACCCCTTCNAGCCCTACCTGAGAACGAAGACACTCAACCCGGAGTTTG
TACCTGCCCCGGGCTGGCNCGCTTCTAGAACTAGTTGGATCCCCCGGGCTGCAGGGAATT
CGATATCAAGGCTTATCCGATACCGTCCGACCTCGAG

Sequence 2644

AATTGGAGCTCCCCGCGGTGGCGGCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTGGGA
AACAGGGTCTTGCTATGTTGCCAGACTGATCTCAAACCTGGCCTCAAGCAATCCTCC
TGGCTTAGCCCTCTCAAAGTGCTAGGATTACAGGTATAAGCCACTGCACTAAGTCCAGTGA
ATCATTITCCAGACAACATTTACTGAATATCCGACACTGCCTTCCACAGACGGGGGAGGT
TTCCCAAAGAGGCCGTGCTTTTTGAGAAGCTGGCAAGATAACCCTGGGGTGGAGGGAAGG
TGGCCCGCAGCTGAGACCACCACTTACTGTCCCCAAATCCTCACCAGAGGTTGCTGACA
CTTTCCTNTTCCCCATCCTCATCTACTTTTCAAATTAGAACAGTAGAAAATGGGATGATT
AGGCTCCTTNNCATTTTTTAAAAACCCCGTTGTTTCAAATTTTNTAGACNCCAAGTCTN
AAANGGNGTAATCNCCTTNGTAAAATTTAAATT

Sequence 2645

CCGGCAGGTACCAATCATATAATNTATATAACATTGCTATCAGACTAAAAACACATTCTT
AGCTAAAGATAACTTACCATTTAGAAGTCAAATGCAGGGAATCTTACTCCTGTTTCCAT
TTTNTGNCCCNCTTGCTTCACTCGNGTATGNCATGCTCTATCTCTTCTCCTATGCAGACT
TTANGNCNGTNGGCCATTAACTCTTGAAGAAATTTCTTCNNTCTTGCTGTACNTACCA
NNTTANTTGGTCTGCGTGCAACAAGAAGNGTATTATANNAAAAAAGTTCTTGCTTAACC
ATTCANGATTAAATAAANAANAANAATTCCTTTGTTTNAACATTTTGNATTTTTTGACA
TACACCAAACCTTTTTTAATTGCCTTTTNCANAGNNCCTTTCCCTCCAAAAAATAAAAAAC
AAAAATCTTCAATCNACATAAAATCAAACACCTGTATTGATCCATGTTTCATGCTAAGCT
GGNAA

Sequence 2646

ACTCCCCGCGGTGGCGGCGAGGTACAAGCGCTTTGAATATCATGGGCACCATGACTGTGA
CCCTACAGGTAGGATTGGATCACTCCATGAGAGTAGCCGGCAGGTTTCTACAAATGGCCTG
GGAATGGACTGATTATTTTTATACATTTTCTGGCCTGAGAGAAAGCCAAGGTCCCCTGCT
GTTACAGCAACCCTGCCTGGGAGCTTGAATCTTGGTAAATCTGCCCCGTTNGGATCTA
TTGGAGGTAGGCTCACCTTTTTNGTCTTTTGTGGGAAAATTAAGAGAAATAATTNTCA
GACNTATCATCACCTCCAGTGGAACCTACAGAAACCTGGACCCANCTGCACTATTTTAAAT
GTAAAAATAACAATATGGCCAGGGTGCACTGGCTCACGCCTGTAATNCNATCACTTTGAG
CAGCCAAGGCGGGCGGATCACGAGGTGAGGAGATTAAAGACCATCCTGGCCAATATGGGTG
AAACCCTGTNTTTACTAAAAACAAAAAAATTAAGTGGGCATNGTNTTGCCTGCCTGTNG
TCCCANCTACTTGGGANGGCTGNGACCAGGGGAATTGCTTTGAACCCCGNANGGCNTAGA
ATTGCANTGAGCCNNAATCANGCNTCTGACTTCTACCTNGGCGACAGGANTGGGACNTTT
TNTTAAAAAA

Sequence 2647

AGGTACCCTATATTCTTCTTGATTTCTAGCCTTTTATTGGCTCTCAGATTGCCAGAGTTG
GGACTCAATAGTAAGCANCCATTCTGGTGAGGCGGAAGNGATNCTACCAGGGTGNGTTNT
CATGACAAGCANAATCACTGNGTTTTTCTCTACTCTGTGGCATANGACTCTATGCCAT
AGAGNGACGTGTGAAAGGCTTGAGGCT

Sequence 2648

TCACCGCGGTGGCGGCCCGCCGGGCAGGTACTTATTTTTCTTTTTTTTTTTTGGGGGTGGG
GNCCTGGGNANTTTTNTNAAGGGGCTTTTTAACNNGGGANGANANCTGTGCCGGTTCAN
CCANGCCGCTNGTNAATTTTCAACCTTTTTTCACTNGCTTTGGGTTTTTAAGGCTTTN
GTTTTCNANCNTTTTTCTTTNAAANCCTTCTTCAAGTNGANGCCATTCTCCNGGTTT
CTTCNAAATNTGGGCCTGGGTCCCTTNTCCCCGGNTTTAAAAAANAACCTTNCCAAAAACA
AAACANTTTTTTCCCCTNG

Sequence 2649

TABLE 1

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CCGCGGTGGCGGCCGCCGGGCGGGTACGCGGGGGTCTCCAGAGTGAGTGTTCCGGAGAG
CACCGTGTTAGGGAAGGAGGAGGCTGCGGGCTAACCTGCCGGGAGGGAGGATGCTACTGC
CTGTTTCCTATTAGTGACAACCCACCTCCTAATCACGTCCTGCTTCAAACAAGGTAACAT
CACAGGACAGCCTCCGAAACAATAACTGTTTGAATATCCTTAATCTTCGGCAACTTCAAT
AACTCCCCAAAATATATGTAATCAGAGAATTAACCTTTACAACCTTTGGTTATTGTTTGC
TTGAACCATAAAGCAGAGCTCTTTCTGGGATAAAAAAAAAAAAAAAAAAAAAAAAAAAGT
ACCT

Sequence 2650

AGGTACTTCACAATACAACCTCTTGCAGAAAAGTATGAAGACACTCTGTGATGGTGGTGGCA
TCCACGAAGTAGCCGGCGCATAGGCAGCAAACAATGTGTTCAATCAAGTCTTTGATCTTC
ACTCGAACCTCCTCCTGACCCTCCTTTCCAGGGGAGACTACACAACGTCGGCGACACAA
CGCGCAGGCCCGCGGTACCTGCCCC

Sequence 2651

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATAACAAGCAATAATAAA
AGTCCTCTGCCGAAGACAGAATAGTGTA AACCTTTCTTCCCCTGCCCTTACAGATTTT
TAGAGAAGATAATTTGGGAATAAAAGGTATAAAAGGTTTTTGAGAAAAGAGAGATCAAAG
GACATTCAGAGTTTCGGGAGGATATCTGGGAAGCAGACTTAGCTTAGATCCTAAAGGGTGT
AGAAGATCTGCATTGCTGGGGAGGAGTGTGGGAGTGGTAAACCAGTCAAAGAATTCACAG
ATGTGCTGGGAGGAGGAGAAGGGGAGCAGAAGCAGGAAAACAGTCTGGCTGAAACACTGG
TTGTATTTCAAAGAGCAGTAGCAAATCAGGGTGGATAAATGTGTGGGCCTAAGCAGCTGG
TGAGCATTAATGTGTAAGAATCAAATTGTATCCTTAGCAAACCTCTGAAGATTTCTGAG
TAAGATTTTTATGAGTGTTGGTAAATTTATATAGGATGCATATGGGTAGTACCTGCCCCG
GCGGCCCGCTCTAGATCTAGTGGATCCCC

Sequence 2652

CCGCGGTGGCGGCCGAGGTACATAGTGTCGCGAACTCAAATCGGCATTTAGATAGATCCA
GTGGTTTAAACGGCACGTTTTTGCTTATAAAAAAAGTGCAAAAAAGATGTGGTTTACAAG
TTAAAGCTACAGAATCCCTTTTTGCTGTAATTGCACCAGTTTTAAAGCCTCTGGACAGAG
CAGTATTTCTGTTTAAACTTTGTTTTCTTAAAGCTTACAGTGTTTGGCTAATTTCTCT
CCCCTTTTACAAGACGGGGGCGGAGGGTGGACACTGGTGGCAGGTTAAGGGATACTGT
CACTTTAAGAAGCCTGCAGATTGAAGTGTAACATGGAGAAATTAGGGGCTGATTTTTTA
AACTGTGTGAGATATTAACCAGCCGCCCTGTTATAAAATCAGGAAATNCAAACAGCGATT
TACACCGATTAAACACCCCTTTATATATTTTTTACAAAAATCACTGAGAAAATAATNAAC
GTTTTCATCTCTCTTGGCTTTTTTTGGTTTTAAAAAGTGTCAAAAAGTCTACATTTAAAT
NTTAAAAATTTAA

Sequence 2653

CACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACACCAA
ATGGATTACAAGCAGCATCCAGCAGAAGACAGACCCCCCAACCCTGCCACCAGGGCTCA
CACTCTACAAAACCTGAGGGCCTAGAAATCTGTAAATGCATCGCCAAGCACTGGGGCTG
ATTTGCAGTAATTTCTAAGCAAGGCAAACATGATCTAGCTTTGAAGGCAGCATGAAGGC
AGCGGGTTGGTGAGAATAATCTCTCCTTAAGAGAAGAAAGAACCTGGGGCGGAAGGAGTT
TTCCCCGAAGTGGCTTCCCGCGTACAGAACACAGAACCTTATTTCTGTCAGTTATTTAATA
CATTGAAAATTTAGTGAAATGTTCAAAGAGAATAGATGTTTCCCAAAACAACAACCTTTAT
GTTAAAAATAGTCAATTAAGATCTGTTGTAATTAATA

Sequence 2654

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGTAAAGGTATAGT
AGTTGGCAGCAGAATGGACCCATTGAGGATAACTATAAAATTACNGAAAATATTTAAATG
CAACTTATTGCTATAGAAGCAAAGAGGACTAAAGGGCAAAATTCTAGAGAGTGGTAAATC
TCAGAAAGCACAAGCATAAAATGCAGCTCTGGGGGCCCTTTCCACTTCTGGCTATAGGGA
AGAACCTGAATACTGAACTTGATTCAGGCAGAGGACCATAACCTGGGGGTCAGGGGAAGG
CATGGGGGGGACCAGAAACCAGAAGAACGATCAAGACTGCAATGAAAAAATGGATACAT
TAGGAGCTTCAAACACATATAATTTCTCAAGAAATTTCCAGATTCTCATGCTGCATAGGG

TABLE 1

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CAGGAGCCTGAAAAGCTAATTTGAGAAGATAATAAGTTGGATTTTTGNTTTGTTTTGCAT
TTTGCAAGTACCTGCCCGTGCCGGC

Sequence 2655

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGGAGGTACCACTGAATCCAAGG
CTCTCTTGGGTAGCCTATGTGCCTCTTGGATGGTATGTGGAAGCCAAGGACTGTCTGAAC
GTGCTGAACAAGAGCAACGAGGGGAAAGAATTACTCGTCCCACTGACGAGTTCTATGTAT
GTCCCTGGGAAGCTGCATGATGTGGAACACGTGCTCATCGATGTGGGAACTGGGTACCT

Sequence 2656

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCCCCGGGCAGGTACTTGAACAGTAGGAGG
AGGTGGTTCCTCATTCGTCTCCCGGGAGCGTCCTCTTCTCAGTCAGGCTGGCACCATGAC
CCAAGGAACCTCGGCGAGTGACGGATAAACACCAAGTCGGCCCCGCGACTAAGAGCTGCGCC
CCCGCGTACGCGGGTCACCAGGGTCAGTTTCTTTAATGATGGTTTCCAAGTGGCCTAATA
CATTGAAGTAAGACTGGCTGATAACATGACCAGACAGACATAAAGACCCTGTTGGGAATGA
CATTGAAGTCTCAAAGTCAAGATTTCTTACACAAATCTATCAGCTGGAGAAAATGAAGGC
AGTGTGGTATATGTGTGCAAATAAGGACATTATGAAGCTTAAATATGGAATGTCTCTTGG
ACCCCGATGTCATCTGNATTCTCTTTTCTTCTGTACCCT

Sequence 2657

CGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACCATCTTGGCTCACTGCAA
CCTCAACCTCCTGGGTTCAGCGATCCTGCTGCCCGAGCACCACCCCTCTCCAAGTAGC
TGGGACTACAGAAGTGCATCACCATGCCAGCTAGCTAACTTGAATTTTTAGTAGAGACA
GGGTTTCACCAGGTGCCCAGGCTGGTCTTCTGAGCTCAAGCAATCCACCTNCCTTGGCC
TTCCAAAGTGTGGGATTACAGGCGTGAGCCACCGCACCCGGCCCATTTTATATATTATT
TTTGCATAGCCTTCATTGTCTTAGCAAAGTCAGAAGAAGACCANTAACATAATGTNATTT
AATTAACAACAACGNCAACAACAACAACAAACAAACCCNGGATGGGGGCAGTGGCTCAAG
CTANTAATGGCCGNCCTTATGAAAGNCCAAGGGGNGNGGATTGGTTGATTCCATTTTAAA
ACCAAAGTGAANCCCTNTTTTTTANAAAAAATAAACCGTTAAAAAATCCTTGGTTTTTG
TTTAAANGNGCCGGTCCCCCCCCCAAGGAGAAAATTTTTNNGGGGGGGGGNGTTAAAAAA
AA

Sequence 2658

GGGCGAATCGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTNTTTTTTTTTTTTTTTTT
TTTTTCTCCANAGGCTAGTTTTTCTTCACTCCTTAANAACCTGCTCCTTATATGGGCT
TCGGTGGCAGTCATGGGGCAGCACCGCAGGTCTACAGTGGGGTGGAGGTGTTTCGGTCCTT
GCGGGGCTTCATGACCTTGATTTNTGGCGGTGCGGGGGCANCACCCNCAGGTCTACAGTG
GGGGGAAGGNGTTCGATCCTTGTGGGCTTAATGACCTTTGATTCCTGACTACCGGGCTGT
GAATNGGCACAACCTCACACAAGTATTGTGNTTTCNCATCNACCCTGGGAAAGAACCCTG
CCCCGGGGGGGGCGGGGTTT

Sequence 2659

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTNTTTTTTT
TTTTTTTTATTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTNAAAAATTTTTTTTTTTTTNAAAAAANCCNCCNCCC
CCCNAAANNCCCCNAAANAAAAAANNNNTTAAAAAATTTNCNCGGNNNTTCCC
CCCNAAANNNTTNTNTNGGCNAAAAAANNNNNNTTTTTTTTNGGGGCCNCCNTAAA
AAAAAANTTTTAAATTTTTTGGGGGGGNCNGGNNANCCCCAATTTTANNTTNGGGGG
GTTNAAAAAANAAAAANGGGNAAANAAAAAANGNCCNNNNAATTNGNNTTNTNAAAAAT
TNCNCCNNTNAAAAATTTTTCTNAANCCCCAAANGGGANGGNCNNTNGGTTTTTTNAN
GGTAANGGGGGGCCAGGGGGGNTTTTCCCAANTTTTNCNCGGCCAAAAAAGGAAAAAT
TTTTTTTTGTTGGGGGGAGGGAGTTTTNAAAAA

Sequence 2660

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGAACAGGGATAAG
TTCTTGATAAGGTGCCAACATACCTATAAAAGCTGATTTTTGAGTAAATTATTGATTCT
AACATATGTAATGGATTTGGTGTGATAATTTCTGATCTTAACTATAAGTGACTTTTTA

TABLE 1
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TTCTCCACCAGAAAAAGATAAATGACTGAGAATGTAAGTCTGCGCTCTGATTAACACAATG
GAGAAACGGAAAACTATCTCTGTTAAAACTGATTCTGTCTTCTGATATCAAAT
AAGAGGAAGGAAAAATAAATTTTTGTGTGTAGATAGAAAAACATACCTGAGGCCAGGTGC
AGTGGATCACGCCCTGTAATCCAGCACTTTGGGAGGCCAAGGCGGGCAGATCAGCTGAGG
TCAGGAGTTTCGAGACCAGCCTGGCCAACATGGTGAAATCACGTCTCTACTAAAAATACAA
AAATTATCTGGGTGTAGTGGTGCCTGTAATCCAGNTACTCGGGAGGCTGAGGCAG
GAGAATCACTTTAATTC

Sequence 2661

TCGGAGCTCNCCGCGGTGGCGGCCGGGCAGGTAAGTCTGGCTGCAGACTGACCTTGCTCAG
GTCCGAGAAGGATGGGGCAGCCACTGGAGTGGATGCCATCTGCACCCACCGTCTTGACCC
CAAAAGCCCTGGAGTGGACAGGGAGCAGCTATACTGGGAGCTGAGCCAGCTGACCAATGG
CATCAAAGAGCTGGGCCCCCTACACCCTGGACAGGAACAGTCTCTATGTCAATGGTTTCAC
CCATCAGACCTCTGCGCCCAACACCAGCACTCCTGGGACCTCACAGTGGACCTTGGGACC
TCAGGGACTCCATCCTTCTTCCCAAGCCCTACATTTGNTTGGCCCTTTTCTGGTGCCAT
ACACCCTTA

Sequence 2662

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGGGAGGGACATACAAT
ATTTAATAGGATATTTCTACAGAAACAATAACTTATATTATGTCCTTGAAAAATCTGTAC
CTCTTTAAAAACATTTAACTGAAACATCCATTTTTTTTTAGCTTTGCTAATCAAAATTGTT
TTAAGAATTAAAACTAGGTTGTAACATAATGTCAGTACCTGCCCCGGGCGGCCGCCCGGGCA
GGTACATAGGCATCCTATTCACTGCACCCTGTACACCCGGCACCCCCCGCCCCGCACAT
TATTTGAAAGACTGGGAATTTAATGGTTAGGGACAGTAAATCTACTTCTTTTCCA

Sequence 2663

AGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTTGTGGTGCACNGAACCCCCCGTTTT
CAGCCCGACCCGGNTGCGCCTTATTCGGTAACTATTCGTTCTTTGAGTCCCAACCC

Sequence 2664

AGGTAAGTCAACTGCCAGAACTTGGTATTGTAGCTGCTGCCGCTGACTAGCAGCTGGAC
TGATTTTGAATAAAAAATGAAAGCATTAAAGGGTTCCCTACAAAACATTTTCTTTAAAA
TACTTTTGAATAATGGCTATAANCAGTTGACTTTCACCCTTGGAGAGCATCACACTGTGTG
AGGTTCAAGTATTGTTGACCCCTNCCCAGCCCCTNCTGCTTCTTTAAGTTATCTGTGTGCG
TGCNCTTCTCTCAATCTTNTTTTGCACCGCTCATTTNTTTTCTCTGACCCATGAAGAA
AAGGAAAACTTTACTGATTGATAAANTTTTTAAAAANA

Sequence 2665

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTAATTTTTTTTTTTTT
TTTTTGGTAGAAGTGGTGTCTCACTATATTGCCTTGGCTGGTATTGAATCTTGGGCTC
AAGCAATCCTCCCCTCTTGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCTCAC
CCAGCCCACTTATTCATCTTTTTGCCTGCAAGCTACACCACCAAAGCCCCAGGTCAAACA
TCTTTCTCCACAGACTGTGAGAAAAGAGCCTTCTTCTCCTAATTTGTAATGGCTTTCA
GCTCTATNTGTCTAGCTTCAATCCTGACATCTGCAGCTTACA

Sequence 2666

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATGAGGCTTGGCTCTGTGTGAT
GCACTCTAACCAGCCCACACTTCAGCAGCGGCATCATTTGGATTGAGGAGAGTTTCTGC
AGCATGAAGGAGTAGGAAGAACACAGGGTGAGTTCACAGGAATCCCTACTTTTCCATGTG
ACCTTGTTTGGCCTGAAGTGATTTTCTTGACCTCTCTGGGCCTGACTTTCCTCATCTGTA
AAGTGGAGGGTTTGAATAATCACAGAAAACAAAATACCTTAAAGGATGCTCTGGCACAC
AGCAGGTATTTCCATATAATGATACCTCCCATTCTTTTTATGTGAGCTATATCCCCTGA
AACCCAGGTTTGACTAAATTGAGACCAACTTTCATAATATACACAATGACTGNTAGATAT
GAATTTTGGTGTGGTGAAGATGGGGAGTGAAAAAGTAGAAAAAGTCAAATCTCATTGAA
TAAAAAAGGG

Sequence 2667

NNGGCGGCCGCCCGGGCAGGTAAGTCTTTCTTNTTTTTTTTTTTTTTTTGGAGGCAGAGTCT

TABLE 1
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NGCTCTGTTGCCAGGCTGGAGTGCAGCGGTGCGATCTTGGCTCACTGCAAGCTCCGCCT
CCCGGGTTCACGCCATTCTCCTGCCTNAGCCTCCCAAGGAGCTGGGACTACAGGCTCCCG
CCACCACGCCTGGCTAATTTTTTTGTATTTTAGTAAAGACGGGTTTCATCGTGTAGCC
AGGATGGTCTCGATCTCCTGACCTNATGATCCGCCGCTCTGTCTTCCCAAAGNGCTGGN
ATNACAGGGCCTGANCCATTGTGCCAGCCAAANTGTNCCTTTGNAAAGTTNGCGAAATC
AGATTTTGTTCCTCAATAGAACCAAAATTTTATGAGGGATGCTAGCATTTTCCAAGGC
ATANTAATTAGTTTACAACCTGAANAAATATTATGTTTTGTANTAGATAAATATTAAGGT
GNGCATTTTAA

Sequence 2668

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTTATTACAT
ATGATTTTTATTAGTTTCTGGAGGCAAATTTAATTTTTATTTTAAAATCAAATCTATTT
TAAAAGAAATAGTTCTCAAAAAGACAACGATGACTGGGTGTGGTGGTGTGTGCCTGTAGT
TCAAGGCTGCTCGGGAGACAGAGGCAGGAGAACCCTTGAGGCCAGTTCAGTCTAGCCTG
GGTAACATAGCAGGACCCTGTCCCTAAAATAATAAAAAATTTAAAAACCACAATAATGTG
AGTTACAAAAAGTGTAACCTATGAAAAGTCCGTATTTATATTGAC

Sequence 2669

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGCAGGGGT
GGGAGCATTTATGGTGATCAGATGTGCCTGGCAAGCCCTGTTCAACATTGCTCACATT
CCAAATGTTTTCTGTAGAAATATTGCACAGGTCTGGGGACGCTCTACCTGTGCCCTGTGA
GTGTTAATAATGGTGGAGAAAGAGTGTAGCTGTGCCCTTGAGAGAGAAGGTGAGGGAAAG
AGTGACACAGTCAGCTGACCGTCAGCTGGCTAGGCTCTTCACTGAGTCCTATGTCGCGAT
GCACAAATCACTGCCCATCANGCCTCAGTTTCCTCATCTGGTAAATGGTGATAACATCAA
TCTGCCCCCCCCGCCAGGGTGTCTGTTATGAGGGTCAAAAGTGGTAGTGAGGGTAATACTG
GNTGAGTCCATTTGTGTGTGGGAGGAAGAAAGGCTTTACATTNACCTGGTACCTTGGGCC
GCTTTAAGAACTAGGTGGATNCCCCCGGGCTGCANGAAATTTNATATTAAAGCTTATTG
ATTCCCGTCCACCTTNGAGGGGGGGG

Sequence 2670

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTTATTACATAT
GATTTTTATTAGTTTCTGGAGGCAAATTTAATTTTTATTTTAAAATCAAATCTATTTTA
AAAGAAATAGTTCTCAAAAAGACAACCGATGACTGGGTGTGGTGGTGTGTGCCTGTAGTT
CAGGCTGCTCGGGAGACAGAGGCAGGAGAACCCTTGAGGCCAGTTCAGTCTAGCCTGGG
TAACATAGCAGGACCCTGTCCCTAAAATAATAAAAAATTTAAAAACCACAATAATGTGAG
TTACAAAAAAGTGGTAACCTATGAAAAAGGTGCGGAATTTAATATTGACCTTTGGTAAGAG
CTCAATTANTTTCAAGGAAAGGCAAGGGAGTATCACCATTCTGAGTAATACAATTTCAAC
TAATCTTTATTTCTTCTACTTGAAGTCAGTGCCTATCTACCACAAACATTCCTATATCAG
TGTGCAAATTAATTTNGAGACAATAGGCTTTTTACGACAATGAATTGGTACTTTNAA

Sequence 2671

ACGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACTTNNTTTTTTTTTTTTTTTT
TTTTTTTTCATTTTTATAAGAATATATAAAAAATGATATAAANGGACATTTACGGTAGTG
GGGGAAGGCATATATNTACGTTAAAAGGCAGGACATTTTTAA

Sequence 2672

TACGAGCCATTTACAAAAATCGACCGCTTCAAGTCAGAGGGTGGCNGAAAACCCGACAG
GGACTATTAAGAATACCAAGGNCGTTTCCCCCTGGGNAAGCTCCCCTCGTGCCGCTCT
TTCTNGTTTCCCGAACCCCTGTCCGCTTTANNCGGGAATACCCTGGTCCCGCCTTTTTT
TTCCCTTTTC

Sequence 2673

CCGCGGTGGCGGCCGAGGTACGCGGGATGTGGTCTAATCAAAGCCATCTCAATTTGTAGA
TGAAGAAGGCAAGGACTAATGACAAGAAATGAATTGTTGGCCGGGCATGGTGGCTCACGC
CTGTAATACCAACACTTTGGGAGGCCAAGGCTGGTGGATCACCTGGGCTTGGGAGTTCGA
GACCAGCCTAACCAACATGGAGAAACCCCGCCTCTACAAAAAATAAATAAATAAATAG
CTGGGCATGATGGCGGGCGCGCCCCCTAATTCAGCTACTCCTGAGGCTGAGGCAGGAGA

ATTGCTTGAACCCAGGAGGCGGAGGTTGCGGTGAGCTAAGATCGCACCATTGCACTCCGC
ACTCCGGCCTGGACAACAAGAGCAAAAACTTTGTCTTAAAAAAAAAAAAAAAAAGTACC
TGC

CCGCGGTGGCGGCCGACGNACCGGTNCTCTGTGGGATACNCATTAGAGTTGCTCGNTGG
ANATGGAATGATGGTGGGGTGCATTTNANCATGGCTGANTGCTTTCTGCTTAAGGACCTG
ATGTATTAATGCTCTCCANGTCATTATATTGGGGGAAGGAACAAAGAAGGGTACCTN

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGTAGCATGATCTTGGCTTA
CTGCAACCTCCGCCTCCCTGGTTCAAGCAATTCTCCTGCCTCAGCCTNCCGAATAGCTGG
GATTACAGGCATGCACCACCATACCCGGCTAATTTTTGTATTTTTAGGAAGAGATGGGGT
TTCACCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATTCACCCGTCTTGG
CCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCACTGTGCCCGGCCTCCATTACACCTCT
TTATTCTAGTTCAACTCAGACCGTGAAGTTAGCATACAGGTCTCAGGAGTTTGAGGCCA
CTTTCCAAGGATAAGGGCCACCTTCAAGGGCACATCTTGCCCTTAAACAATTAATTTNT
GAAAGCTTTTGGGAAAAGGGGNGAACATGCCTTTT

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCCGGCCGCCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTTGAGATATAAATTGGTATGTTACATGTTGGTAAGAAAGATCTAATAG
CTAGAAAAGGAACTGCTGAAGTGCAGGAAAGAGAAGAGAAATNTAAGGAATGAAACCTG
AAAAATAGAGGGCAGAGTCAGAGGGGTGGAGAAGGAAGGGGCCCTGACGGGAGGNGGACC
ACTTTTNC AAGGCACATGCAGGCAGGCACCTNTNTGGAGGGTCCCATGGCTGGCTATGT
GTGGCAGTGCATGAAATAGTCACTGAATATGCTCCCTTGCTGTCTCTGCTTGTGCTCAC
CGAGGAGTGA CTGTGTCTACTGGAACAAGTTTGCCTTTTCACTGGTCTAAATAAANGGA
TCAATGACCTCAAATCTAAAGAGCATTAGGAAACCTTNTNAAGCCANA ACTGTACCCTTG
GCCGNTNTAAAACTAAGGGGGATCCCCCGGCTGCAG

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGCTGCGTGCGGCGGG
AATCATGGCTGCTCGCAGAGCTCTGCACTTCGTATTCAAAGTGGGAAACCGCTTCCAGAC
GGCGCGTTTTCTATCGGGACGTCTTGGGGATGAAGGTGGAGTCTTGCTCTGTGCCAGGCT
GGAGTGCAGTGGCGCGATCTCGGCTCACTGCTCTGACTACACCCGGATAACAGAAGACAG
TTTCTCAAAGCCTTATGATGGGAAATGGAGTAAACAATGGTGGGATTTGGGCCTGAGGA
TGATCATTTTGTGCGAGAAGTCACTTACAATTATGGCGTCGGAGACTACAAGCTTGCAA
TGACTTTATGGGAATCACGCTCGCTTCTAGCCAGGCTGTCANGCAAACGCCAGGAAGCTG
GAAGTGGCCACTGACCGGAAAGTTGCANGAAAGGTGTTTTTTAAACCCAGG

[illegible]

TAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTAACANGGGTGTCTGGTCTT
AGAAGCCTCCCTTCAGATCCCAGCTGACCCTGGTGA CTGCCTGGCCTTGATGTTGGCTGC
AGCCTTCTGATAGAACCACATGGATTCCACCCACAGCTGGCCAGGCTTGTTACATGGGTC
AAGGGAATACAAATGGCCCCCCCCCAGGGAGCAGGTGTTGGCCTCAGTTTTCAGGGACCC
TTGGTGTTGCTCCTTACCTAGAGCCCATTAATCTACCCCATNAACTCTCTTGCCATGAAA
AGCCATCTTCCAGGAGCCCTGTTTT

AGGTACTCAAAGACGAATCATGAAAAAGAAAAAACTTTATTTCAAACAGGTTTCAGTGAT

TABLE 1

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ATATGTGGGTGCTNCAGCAAAGGCTGGTTGTGGCAAAGTTTCATTTCAAACGTATGATG
TGGGCTGGGCAAGGTGGCTTCACGCCTGTAATCCCAGCACTTTGTGCCGCGTACTCAGC
TGTGTTTCATGTGGNGGTCTGTGGAAAGAAAAGAAGACTCGTTTGAAATGAAGCTGTCCC
TTTCCAAGCAAGTCTTCTGGTGGCTTTTCTTCTCTCAAAAATGGGATCCCGATAAAATAT
TTGAATAGGAGCNGAATTGGTAGAAATGTTCTGTCCTGTCACCCCAGAAAAGCCTTGCCCT
GGTTTT

Sequence 2681

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTGGTTTAAT
TTCACAGTGAGGGAGTCGGTTGGTGATCTCTAAGAAATCCCCAAGCACCTGGTGTTGGGA
AAGTCCCTCAAATAAAGAAGTGTTCTTTTCTTTTTTTTCTCTCTCTCTTTCTATTTAT
TTATTTTTTGAGATGGAGTCTTGCTCTGTCAACCAGACTGGAGTGCAGTGGCAGGATCTC
AGCTCACTGCAACCTCCACCTCCCGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCGAAT
AGCTGGGATTACAGACACCCACCACCACGCCAGCTAATTTTTGTATTTTAGTAGAGAC
GGGGTTTCACTATGTTTTGTCAGGCTGGTCTCGAACTCCCAACCTCAGGTGATCCACCAC
TTAACCT

Sequence 2682

CCTCAGATTTTGGGCCTAGGAAGGTAGGTGATTTAAACTCACTGAAAGCATGTACACCTT
GCTGTTGCTGCTTGCTGCCACTGCTGCTGTTTCATCTGTTCTGCTGCCGCTGGAATCGT
GGAGGTAAAGACTTCTGAAACTGTTTGAATAGCCAGATAATACAGC

Sequence 2683

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTCTTTTTTTCTTTTTCTTTTT
CTTTTTTTTTAATGTGAGACAGGATCTCATTCTGTTGCCTAGGCTGGAGTGCAGTGGCGC
AATCTCGGCTCACTGCAACCTCTGCCTCTGGGCTCAAGCAATTCTCCACCTCAGCCTC
CCAAATAGCTGGGATCACTGGCACAACCACCATGCCAGCTAATTTTGATTTTTTGTA
GAGACAGGGTTTACCATGTTGCCAGGCTGGTCTCAACCTCCTGGGCTCAAGCAATCCT
CCTGCCTCGGCCTCCAAAGTGCTGGGATTACAGATGTGAGCCACCGCATTCAGCCCCACA
CCCTTATTTATACCAATTACCTGCCAGTAAGTNGGACTTTTGCTTCCTCACCCTGTTT
TGATCGCTTTAAACTAAGTGGGATCCCCCGGGCTGCAGGAATTCGATATTCAAGCTT
ATTCGAATACCCGCCGCCTTCGANGGGGGGGG

Sequence 2684

GACTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTC
TTTTCTTTCTTTCTTTTTTTCTTTTTTTGAGACGGAGTTTGCTCTTGTTGCCAG
GCTGGAGTGCAATGACATGATCTCAGCTCACCACAACGTCCACCTCCAGGTTCAAGTGA
TTCTCCTGCCTCAGCCTTCCCAAGTAGCTGGGATTATAGGCATGTGCCACCAAGCCTGGC
TAATTTTCTATTTTAAGTAGAGATGGGGTTTTCTCCATGTGGGTCAAGGCTGGTCTTNGA
ACTCCTGACCTCAGGTGATCCACCCACCTCGGGNCTCCCAAAGTGCTGGGATTACAAGG
CCGTGGAGCCCACCGNACCCAGCCAAAGGCCAAAATNCTNAAGTCTTTTGNTTTTTTTT
TCAAATTGAGGGGTNGTTATTTAACAACAAGCTTGGATCATTGAGNCCAATTNTTTTGG
TTCCCGGTTTCCCCACCCGCCAATTCNTTTTTTTTTT

Sequence 2685

AGGTACAACATTTAGAGAACCTTAGCTGCCAGAAAACTCAGATTTTCTGCTTTACAAA
AGAATAAAAATCATGAATTTATTACCCTGGACTTTATTGAAATCAGTGAAGAAATTC
ATACCAAATACCAGGTTTCACGAACNTTNCCTCTCTCTTTTNTTCAAGGTAAGGGGGT
TTGGNCAAAAAGNTTGTNTTTTTNGAAAAANGCCGCCNGNTTGGNNCNAAGGTGGNNCC
TGTTTAAGGGTTGGGCNNACGGGGGGTGGTTAAGGAAAAAATTCAAATTTAAANCNTTTT
TATATTTTCCCGGGGGCTGNGTTTTAANCTTTAAACCCCTNGGTTTTNCCAAAGGGGN
AATCCCAAGGTTTTTAAAAAAGGCCNNTTTTTTTTTTGGGGACCCTNGCCCNNGNC
GGGGCCCTTTTANAAAAAAGGGGGGNTNCCCCGGGGGGTGGGGANGGAANTTTTGGAN
NTTTAAGGCTTTTTTGGGTANCCGGGGAACCCTTTNAGGGGGGGGGGG

Sequence 2686

CCGCGGTGGCGGCCGAGGTACTCCAACCCAAGCAACAGAGCAAGACCCTGTCTCAAAACA

[illegible]

TABLE 1
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ACAATTCACCTANGTAAATATTGATGTCATAACCAAATATATGGCCCCGTTTCATAA
AGGTTACTATATTCTATAGAGAGTGAAGAGGTGGCCTTTCTATCCCAGCTTACCCTATTC
TTGTTATTGTTCAAATTCTCCTGAAGCTTGCATAACTAGCTGCCATCAGGTAAATGCTAT
TGGCTAGCAGAAGACTGCAGTTCTGTTAATTAGAACCCAGCAGGGGGAACCTGGGAAC
TGACATTAATAATCTAGAAACGGAATTTA

Sequence 2694

CCGCGGTGGCGGCCGCCGGGGAGGTACTTTTTTTTTTTTTTTTTTTTTTGGGCGGGGGTCT
TTATTTGAGTTTAGGCATGATTGCAATGAAGAGGATCATGCTAATGAAGATGAAGCAGAC
GATAATGAGCGTGGCCCAGAGCAGCCAGTTGACTGACT

Sequence 2695

GAGCTCCCCGCGGTGGCGGCCGAGGTACACCTGTGGTCCCAGTTACTCCAGAGGCTGAAG
TGAGAGAGTCTCGTGAGCCAGAAAGTTGAGGCTGCAGTAAGCTGAGCCATGATTGCACC
ACTGCACTGTAGCCTGTCTACAAACAAATAAACGAAAAAACAAAAAGACTTGTGAAAAGT
GCTGATTTTTAATTAGGAAAAGATTAAACATTGGATAGTCATGGAATTGTTTACTGAACA
TTAGAAATTGGTTGCAAGGGTCTATGCTTCTGTAAAATAAA

Sequence 2696

ACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATATATGAATCACTA
AGAGTTCAGAAATTAAGCTCACTTTAAGAAAACCTCAGCCAGGCACAGTGGCTCACGCCTG
TAATCCCAGCACTTTGGGAGGCCAAGGCGGGTGGATCACGACGTCAGGAGTCCAAGACCA
GCTTGACATGGTGAAACCCTGTCTCTACTAAAAATACAAAAATTAGCCGAGCGTGGTGAC
ACACGCCTGTAATCCCAGCTACTCAGGAGGCAAGGCAGGGGAATTGCTTGAACCAGGGAG
GCGGAGGTTTGAGTGAGCCCAGATCGCGCCATTGCACTCCAGCCTGGACAAGAGAGCGA
GGACTCTGACTTCCAAAAAAGGAAGAAAAAAGTTCCCTTGCCCGGGGCCGN
CGNCTCTAAAAACTAGGNGGNTNCCCCGGGGCTTNNANGGAATTTNGATTATCAAAGC
TTTNTCGANNNCCCGTCGACCCTCGAGGGGGGGGC

Sequence 2697

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTT
TTTTTTTTTTTTTTTTTGGTANGGGACCGGGTTTTACCATGTTGGCCAGGATGATCTCGA
TCTCCTGACCTCATGANCTGCCTGCCTCGGCCTTCAAAGTGCTGGGATTACAGGCATGA
GCCACTGNGCCAGGCCTTTTGTCCATTTTTATTGAACTGCCTATTNCTTCTTACTGATT
TGTAGAAAGTCTTTATTCTAGTCTGGCAGGTATTTTNTTCAACACTTCCAAGATTATTN
ATTGGCTTTGGNAGCTAATGCTTCATTTGANAAAATGCTACCTGTATTATTGATGCCCAT
GTGA

Sequence 2698

CACTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACAATTTCT
TTTTCTTTTTTTTTTTTTTTTTTTTTCTTTTCTTTGAGACTGGGTCTCGCTTGTTCG
CCAGGCTGGAGTGGAGTGGCGTGATCTTGGCTTACTGCAGCCTTGCCTCCCCGGCTCGA
GCAGTCCTGCCTCAGCCTCCGGAGTAGCTGGGACCACAGGTTTCATGCCACCATGGCCAGC
CNACTTTTGCATGTTTTGTANAGATGGGGTNNACAGNGTTGCCAGGCTGGNCTTAAAC
TCCTGGGCTCAGGCGATCCACCTNTTTTANCCTCCCAAAGTGNTGGGATACAATTGNGAG
CCACCACGTCCAGCTGGAAGGGTCAANAATTTTTACATTTTNGNAGCACAAATNTGGAT
TTTTACCCANCCCTTCCCTTCTTTTCCCTTTTTANNNNCCCAATTTTAAATCGNN
NCNNTTTTNTTTTANAAAAAANCNTTTTTTNCCNAAAAA

Sequence 2699

CTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTT
TTTTTTTTTTTTTTTTTGTTTTTTTTTTTTTTTTTTCCGACCAATATGGTTTATTNTG
CCCCAGCCAAGCTTNTTGGACCCTGGCTGGGGGAAAGGCACCCAGGCACCGGCAAGT
TCCAGTCATTGCAGATCCTCCAGGTNTAGNGTGACTGGAAGTANCCTGGGCACTGNTGC
TGGACCGTNGGATTCTCCTTCTTNTCCGCCGGCGGGTGGTCACCAGGACACCGCANAT
CAGGCATGTGATGAGTCCCAGGAGTCTGCCAAGCCGATGAGGATGACAGCCCAAAGGG
AAGGT

TABLE 1

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Sequence 2700

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CTTCAGTGGATGCAAATGA
AATTTTATCTTTGAAAGTAAGAGGAACTATGGCTGGGCGGGGTGGCTCACACCTGTAAT
CTCAGCACTTTGGGAGGCCAAGGTNGGGCGGATCACCTGAGGTCAGGAGTTCAAGACCAG
CCTGGCCAAACACAGTGAAACCCTGCCTCTACTAAAAATACAAAAATTAGCCAGGCGTGGT
GGCACGCTCCTGTAATCCCAGCTACTTGGGATGCTGAAGCAGGAGAATCTTTTGAACCTG
GGAGGCAGAGGTTGCAGGGAGTTTGAGATTGTCGAGTATAGTGGATTGAGTGCTGTGGAG
CCGAGATTGCCAAGTGCACTGGATCGAGTCCACTGCACTCCAGTCTGGGCAATAGAGCTA
AACTCAGTCTNAAAAAAAAAAAAAAAAAGTACCTGCCCGGGCGGCCGCTCTAGAACTA
GGTGGATCCC

Sequence 2701

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTTGCTCACCAA
GCTCTTGAGGCCAAGCTTGATACGGCTGTTGTTTTTTCTACATCGTAGCCAGCAGCCGC
AAGCGCTTTCTTAAGCGCGGCCAGAGAAAACGCCGCTGCGCTCCTTAGAAGCTGCCACTG
CCTTGGTGATAAGCTCAGATACTGGGGGTCCGGATGCTTTGCGTTTCCAGCAGTTGCGC
CTGCCTTCTTCGCCTTTTTCTTCACAAGGTGTTTTTTCTGCGGGTGCAAGGAATGGTAGGA
GCAAGTGGAGCAGTCTCCGACATGTTTTGTCTTCCAGAAAAGACAATAAGTAATCTCA
AACTGTCAGAACAGCATGTCCCCCGGTACCTGCCCGGGCGGCCGCTCTAGAACTAGGTG
GATCCCCC

Sequence 2702

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGAGGAAGGGGAGG
GCTTGGTGTTCCCTACGCGAAGGTCTGACTCAATGCTTATCCCTCTTCTCCTCTCTCT
GCAGACTGAAGAATTGAACCGGGAGGTCTGCTGGCCACACGGAGCAGCTCCAGATGAGCAG
GTCCGAGGTTACTGACCTGCGGGCGCACCTTCAGGGTCTTGAGATTGAGCTGCGGTGACA
GCTGAGCATGAAAGCTGCCTTGGAAGACACACTGGCAGAAACGGAGGCGCGCTTTGGAGC
CCAGCTGGCGCATATCCAGGCGCTGATCAGCGGTATTGAAGCCCAGCTGGGCCGATGTGC
GAGCTGATAGTGAGCGGCAGAATCAGGAGTACCTGCCCGGGCGGCTCTAGAACTAG

Sequence 2703

CCGCGGTGGCGGCCGAGGTACGCGGGTGTGAGGAGGTGGGGAGACCACCCACCCCCATG
TCCACCATGACCCTCTTCCCACGCTGACCTGTGCTCCCTCCCAANCATNTTCTCTGTTT
CANANAGNTGGAGCTGAGGTGTCTCCATCTATGNCTCAACTTCATGGTGCACTGAGCTGT
AATTCTTCCCTTCCCTATTAAAAATTAGAACCTGAGTATAAATTTACTTTCTCAAATTTCT
GCCATGAGAGGTTGATGAGTTAATTAAAGGAGAAGATTCTAAAAATTTGAGAGACAAAAT
AATGGAACACATCAAAAAAAAAAATTAAAAAAAAGTA

Sequence 2704

TNAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CTTTTTTTTTTTTTTTTTTT
TTTTTTCTTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGCATCAAAAAGCT
TTATTTCCATTTGGNCCAAGGCTTGTTAGGGATAGTTAAAAAAGCTNCCTNTTGGCTGGN
GGGAGAGGCTTAGGCANAANCCCTNTTACTTTGNANGGGGCCCTT

Sequence 2705

CCGCGGTGGCGGCCGAGGTA CTTTTTTTTTTTTTTTTTTTGTGTTGAGACAGAGTCTC
ACTCTGTCACTGAGGCTGGANTGCAGNGGCGGATCTGGGCTCACTGCAACTTCCACCCC
TTCGNTNTAAGTGATTCTNCTGCCTCANCCTCCNAANTAGCTTGGATCACAGGCGCCCCGC
CACCACACCCGGCTAATTTTTGTATTTTAGTAGAGACATGGNTTACCAAATTTTTTAAA
GAAAAATAAAGGTGCATGATCAACAATCAAACCTNTAGGACCGTCCCTANCAGGAGAGC
AGCAGCAGNAGCAGCACACANACCTGCCC

Sequence 2706

CACTACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CTGAGCTNACCATT
CTAAGAAACTCCAANAAAGGAANCATGTGTNTTNTATTCTGACTTAACTTNATTTGTCAT
AAGGTTTGGATATTAATTTCAAGGGGAGTTGAAATANTGNNAGATGGAGAANAGTGAATG
AGNTTCTACCACTCTNTACTAATCTCACTATTTGNATTGAGCCCAAAATAACTATGAAAG

TABLE 1
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GAGACCGAAAATTTGNGACAAAGGATTGNGAAGAGCTNTCCATNTTCATGATGTT

Sequence 2707

NCAC TACTT AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGGGGAGTGGGG
TGAAGCGTGTCTCTACATAGGCAACACAGCCGCTAAGTCACAAAGTCAGTGGTCGGCC
GAGGTACTTTGGTAAGGAGATAGGGAAGGAATTAAGGCTATTACTCTGAAGAAAGTTGGG
GGGCCAGGGCTCCTATTTTTTGTCTGAGGAGATGGAAGATCAGGGCTTGTATTCAATAAG
AATGGGAGGGGCCAGGGGATGCCTGGCAAAAGCCTTGCACTGTGAGGTGCAGGTAGAGGC
TTTTATTCTGGTGAGAGGACATGGACTCTCTCTCCCCTCAGGTAAGTGTGCCCTGTAC
CTGCCCCG

Sequence 2708

GAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTNAATTNTTTTNCCTTNNNNGAGACG
ACCTTTTTTGGANATTTTTTATTTTTGGCAAATTTGATCTTACCCTTTACCAGTTCTA
TAATTTGGNTAAAAGCTGATTATGTCCTACAATGNCAAAGTCAGCTAACTGNCGTCTACT
TAAGACTTNTGGNCATTTCCAACCTATAGAGGAAGGGNGNCTCTAAAATCTCTTCTCAG
AAGGCACCTCACTTNTCANACTTAAANNCCACATCAAGTGTTCCATTAAAAGAAGATAN
GGCATTCTGAGTGCAAACAAATGGGGGCTTNTTAACTA

Sequence 2709

[illegible]

Sequence 2710

CCGCGGTGGCGGCCGAGGTACACGAGAANAGGAGACCCCAACACGCTTCAAGCTTTGAGT
GGAGAGGACACAGCCTCTGCTGNGACAGGGAACANAGGGATGCGGAGACCCTGAAGATGC
TTTTGGACAGTGGTCTGAGGTTGGGACAGTGGCAGGAGATACATTACCCAGGATCTCC
AGGACAAGAGATCAGCCTGGCAGTTACATGTGTTTTTTTCAAAGTGGTTGCCAGGTTGG
CATGAGCGATGACATCAGGAGATTCCGACCTTTTCTTATTGGANGGGACCGGACTNTGTN
GGACCTGGGGAGTTNAGTTGGACAAANAAGAACCTTTTAAAGGGGNTTTCNNTTTTGNT
TTTTCCCCCNCNAAATTNTAAANACCTTTTTNTTTNCCCCAAGGGGNCCAAAAAAA
CCCGCCCCCCCCNNNTNTTTTTTGNGGGGANNGGNNANTTTTTGGANAAAAATTT
TNTCCCCCCCCCCCCCCC

Sequence 2711

CCGGGCAGGTACCTTATTACATATGATTTTTATTAGTTTCTGGAGGCAAANGGAATTTTT
ATTTTAAAATCAAATCTATTTTAAAAAGAAATAGTTNTCAAAAAGACAACNGATGACTGG
GTGNGGNGGTGNGTGCCTGTAGNTCAGGCTGCTCGGGAGACAGAGGCAGGAGAACCCTT
GAGGCCAGTTCAGTCTAGCCTGGGTAACATAGCAGGACCCTGTCCCTAAAATAATAAAAA
AATTTAAAAACCACAATAAATGTGAGTTACAAAAAAGTGTAACCTATGAAAAGGTCCGT
AATTTTATTATTGGACCCTTTGTTAAGGAGCTCAANTAATTTTCAGGGAAGCAAGGGAGG
TATCACCCATTTCTTGAGTTNAATACCAATTTTCAAACCTAAATCTTTTAAATTTT

Sequence 2712

CCGGGCAGGTACCCCTGACACTCCAGAGCTACTGAGAAATACTCCTTTGTCTTTCTGCA
CTTGTAGCCAGGCTGAGCTTTGTGAAAGAAGATTGTGTATGTGTGTACTTTCTTTTTT

Sequence 2713

CCGGGCAGGTGCGCGGGTGGGTGACGCTGGTGAANTGGCCANGGAAGTGACATGTCTC
TNCCTGCTCTTCCAGGGTGATTTTTTATGTTTGGCTCTTGGTCTTGTTCCTACTGGC
TTTCCATCCCATGGGGCAGAAACAGTGGCTCCTGGGAGCAGAAAAGGAATTGAGGTGGG
CAGGCAGAAGAGCCTGGATTGCTCACTGTTTTGGGAAACTTACTTNNAGANNTANANAAG

TABLE 1

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ATCCNGGAAAACCCAAAANCCTTCTTGACCAAACCATTTTTTGGGGTTTTTTTTTGNNGG
CCNAAAAATTTTTTTTTTTAAAAAAGNNNGTTGNGGANAAAAACCCGGGGGGG
GGGGGGGGTTCTTTTTTTTTTNGTNGGGGGGGGCCCNAAAAAANGGGGTTNAAAAACN
CCCTTTTTNCCCCCNNNNNNNNNNTTTTTTTTTTAAAAAATTTTTCC
CCNNCAAAANNNNNNTTTTTNTTNNCNCNNTTTTTTTTTTTNGGGGGGGGGGN
NAAAAAATAATN

Sequence 2714

CCNGGCAGGTACNCGGGGGCGCGTGAGCAGCTGCAGCGGCAGAGGCAGCATCCAGCGCG
GCGCCAGCAGTTCCAGTCCGTTGCTTTACTTTTTGCTTCACCCGACANTTAGTCNTTTA
ATGCCCCGAAAGNAGGAAAAGGTCTTCCAGGAGGAAATAACNAGTAGGGGGNCAAAAA
NGAATNGGGATTCCCCAAAAAGGTAAACCTTAAAAANCAANNNGAANGCNCCACC
AAAGGGAACGGGTTCTTGCCCCAAGGAATTTGTTGAGNCGAAAAACCTTNNCTTTCCN
ACCCCAAAAAAACCCCTGTNNANCCCCCAANAAACCCCAAAAGGGAAAAANAACAT
TTTTGCTTTTAGGAAAAGGGAACCTTNTGTTNGGNNAACCCCAAAATTTATTTNTN
GNNGGGGTTTGGCCCTTAAAAAGGGGGGAAAAAGNAAAAAGGGGAGGGGNAAAAAA
AAGNNCCAAGGGGAAAAAGGCCTTTTNGNAAAAANGG

Sequence 2715

CAGTAAATGAATAATCTACAAGCGTGGTTATGGCAAAATCAATAAGAAGCGAATTGCTT
TGACAGATAACGCTTTGATTGCTCGATCTCTTGGTAAAAATACCGGCAATCCCTCCNGCAT
TGGGAGGGAATTTGGATTTTCCAATGGAGGAATTCCTAANTAACCTGGTTTTGGGNAAA
AAAAACCGNCCTTTTCAAAAAAGGNANGGGNCCAAAAAATTAAACCTTTTTCCCTT
NGGTNGGGGGCCCCCCTTTTCCAAAAAATTTTGGGTCTCTTTNCTTTCCCAACC
CGNAAAGGGGGTTNGGGGAAAAATTGGGAAAAGGGAAAAAAGGGGAACCCCA
NACCCCCCAAAATTTTTTTTTTGGGTTTAAAGGAAAAAAGGGGGTTTGGGGNG
AAAGGAAANTTGNCCCTTGGGGCCAAACCAAGGGGGGGAGGGGGGAACCCCAANGNA
ATTCCAAAACCCAAAGGGGGGCCCTTTTAAATTTTAAANGAAAAAGGGAAAAATTN
NGGAAAAACCTTTAAAAAGGGGGNGGNGGTTCTTTAACCCCCATTGGGAAAANTTAA
TTTTTTTT

Sequence 2716

ACTTTTTTTTTTTTTTTTTTGTGAGAAAACTCCTTTATTACCATCTCCCTATTACATT
TCTATTCTAGGGTAGTGTTAATCTCAGGGTCTTATTTCTTAAAGCACNGCNAAAAAGG
CCTTTGGTAGGAAAGTTAGGTGGTAAAGGTTTTCAATCCTTTCNATTTTNTAATCAA
ANGGGGAATTGGAAAAATTCCANAAAGGNCCATAGGGGNAGGCCNTNGTTGGGACCTTA
GGGGANCAAAATTAACCAGGTTTAGGGTCTTAGGGGGGCAATAAACTTTCCCAAAAC
CCAACCATTTTAAGGGGGGGAAAAAAGGCCCCCAAGTTTTTGGGGAACCCACCNA
GGAGGCCTAATTAGGTTTTGGGGCCTTNCAAAACCCCTTTTAATTTTCCAAATTGGAA
NCCAAATTTCCGGGTNGGTTTTTTCNAACCAATTCCAANTTTTCAAAAAAAGGT
TTTTTTTTTGGGTNGGGGNAAAAAGGTTTCTTTCTTTGGTTAAAGGNTTGGGAA
NCCCCAANCCCCCTTGGGAATTNAACCTTNGGCCCTTGGGGGGGGGAAGGGTTTT
TTAATTTTTTTTTCCC

Sequence 2717

AGGTACTTTTTTTTTTCTTTTTTTTTTTGGTGGGGGTGTATAGGTCTGGGGAGNGC
CTTTCAGGTGCTGCTCCATAGACATGTGTGTGCCCTGTATAGAAACCGCCCCCATGTN
TAGAAAAAACNNCCAGACNCTTNTCCCAANAGNCNNGNTTCTTNACCCATGTAAANNGG
AAGGNTGNGCGTAATTAGGAAAACCAAGGGCTCAACCANANAGGGCCAAACCAATTTAAT
TAAAAATCCGGTTCTTGAAGACCTTTGNCCAAATGNATTACCTTGTNCNCCAATTTT
ANAGGGGAAGGCCCTATNTANNTTNTNTCTTTGTCTGGTGGGGCCCCCCCCCACTTT
CAAGGTTTGCCTTNGGNCTNCTTACCTTAAANTNAGNNAAACCAANGGCGGNCCAATNA
AAAAANGGCCAAAAGGGGNCTTTGGTTNAAAAAATTAAAAAAGGTTTTTANTTT
TTAANCCAATTAATAATTA

Sequence 2718

TABLE 1
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TCGCGGTGGCGGCCGAGGTACANAGTCTTTTGCTTCCTCCCACCCCTAGGGGGAAAACT
GCTTTGTGCTTTGGGAAGTTGTCTCTGAAACCCGGTNGNACAGATTGTACCGTCATTGTA
CCAGGACCTTACNGCANCGNNAANGCNCCGGGNGCAGGGCATTNGGGGGNCCTTGGCCA
AGTCATTGNTTNGNAAATGNGGAAGGNGGGGATCTTTTACCAAGGAAAGGGGTATGGAA
NGTTANGNAGGNTTCCCNGGTGTAAAGAAAAGGTCCCAATGTNATNAGGACCCCCCTTGG
GAAGTTAAANGTCCCCCATGGTAAGCGGTCCCAAGAGGGTTNTTGTANTNTAANGGGA
AGNGGNGATNTGNGGGNAAAAAAGGGATTGNNAAAGANCCCAAATTTACCGNNGGANATC
CCTTTGGGGNNGNGCCCCCTTTGGNGTGGAAAGAGCCCNCCCGATTNTAAANCCAAACCCG
TGCCTTACTTTCCCNNTTNCNNAATTGGTTTTTAAAAAATTANGNACNCAACCCCCCT
TTTTTTAANGGGNAAAAAATAATTTTTTNCAAACCNAANGGGTTTTCCCCC
CCCCAAANTTNCACCAACCAAAAAAAAAAAAAAAAAAATG

Sequence 2719

GCCGAGGTACAAACGGGTTTCCCACCTTGCCAGGGATCCTGGGGACAACAGATGTAAAC
TCCTGAGTCTCTGTGTGTGTCCTGAGTGGCCAGTCTGCCAGAACTCCACACAGCTCTGT
GTATTGAACCCAAGGCCTTGGTGGCCTGGGCTCATGAGCAGGTCTCCTGATCCATGGATT
GCAGAGATCCATGGGAGAAGCATGATTTCCAGGCAGGGTCGCACATTCATCATTGCTT
CCCTTGGCTGGGGATTGGGGTTCTTTGGCTCTGTGCCACTCCTGGGTGGGCCATTGCCT
CACCCTTCTTCTCAGTTCTTCGTGGGTGTTTGCCTAGTCAGTCACAATGTGAGAACC
TGGCGATTTCAATTAA

Sequence 2720

AGGTACACTCGCCAGCGGTTTTGCCACAGGAGTGTACGGGAACAAAGGAGACAGGCTCAT
TTATAATCTGACGCGGNCACCCTNCTGCTGCGTTTCGTTTTCCATTGGCTGGGACNGNACC
TCACCTTCTGTATTTGTCCCGACTGGCTAGCACTTAGAACTTTTTAAAAGAGGCAAAGGC
ATACAGAGANCAAAGGAAGGAGGAAGTNACTTGTGGAATATTGAGAAAGGTAAAAACACC
TTTAAATAAGGAAGAGGAACAGGCTATGACCTAATGCTTGTNGGATCAGTATAAGCATG
TTAGGGCAAATATTTANGCTAAATTGTGGGAGCTAAGAACATAAAGTATATTGATTTTT
ATTATGGCTAGCA

Sequence 2721

AGGTACAATTTAATTTTTCTGCTTGCCCNNGGAAACAAAGCTTCTGTGGAACCATGGAAGA
AGATGAAAATGAGACTGGCAAAGAACAATGCTGAATCTGAAGAAGAGGACAACCTTTGGG
CAAATAATCTGCATACTTTAATTGGGAATAAGATGGAAAATATGAATGCTAAATCAAAT
TTTTAANNNATACACCACACGATACGACTCCCCGCTACATCTTTGCTGTGGCTCACAG
ATTGTTCTCCCATTTCCCTTGCCGCTTTTGCCTATCGATGGGTAGCAAGAGTCTTTGA
AATAAGCCCATTTGAGCCCTGGATAACAAGGGATAAAGTGGAGCGGATGCACATCACAGA
CATGAAATTGCCTCACC

Sequence 2722

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGG
GGGNAAAAAANNTTTTNNNAANANNNGANAAAAAANNNGGGGAACCNNNNGGGGNNCNC
NCCCCCNAAAAAANGNNCCCCCCCCCNNAANNNAAAAAANNANTTTTCAAAAAANAAAA
AANGGGAANTTTTTANCNAAAAAANNNTTNTNTAAANNNNNTNTNNGGGGGNGGNGN
TTTTNAAAAAAAAAAAAAAAAAAAAA

Sequence 2723

GAGAANGACACCATGTGCCTCAGAACTGCTCGGTCAGACGGTGATAGCGAGCCACGCAT
TCACAGGGCCACTGCTGCTCACAGAAGCAGTGAGGATGATGCCAGGATGATGTCTGCCTC
GCGCCTGGCTGGGACTCTGATCCCAGCCATGGCCTTCCTCTCCTGCGTGAGACCAGAAAG
CTGGGAGCCCTGCGTGGAGGTATGTGGCTGGAGTCAGCTCCTCTGAACTTCCCTCACTT
CTGCCAGAACTTCTCACTGTGTGCCCTGGTTTGTATTTTTGCAAAAAAAAAAAAAA
AAAAGTACCTGCCCC

Sequence 2724

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTCCAATGA

TABLE 1
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ATGGTAACTGATCCAGGCACGTTATCACACTTCCTAGTCATCTCCACCTTTCCTGTATTG
CCTGTGGCTTGTGTTAAGATTAAGAATCAAAGAGATTAAGAAGTATCACTTCAAGTCT
TGCTCTGCTCACTTCTATGTTTGCAGTCAAATTATTCCTTATGTTGGTGACCTAAAGAGA
ATTACTTTCATTTCATTTTCATTTCCCCCGTAGCAGATGGAAGTGAGAAACCTCTGAGAAAA
TGAAACATCCTTAACCACTATCTTCCCTTTTATTTGATTATTTTATGTCAGAAATTTG
CAAAAGTTTTTTCTCCTCCTTCTCTTCTTGTGCTTAACTTTTTAATTCATGCCATAT
GCAGATATCCAATTATGTGCATCCTGTGAATAAACCACGCTTGGTCACTGTCATATTT
GAACCATCTCATCAGAGATGAATAATA

Sequence 2725

CCGCGGTGGCGGCCGAGGTACGTATTACTGTTCCCATTTATATGTTACAAATGAAATGAA
CACATTCTCATAAGTTAAAAAATATAGAATATATTTTTCTTTTCTTTTCTTTT
TTTTCTGAGACAGAGTCTCGTTCTGTCACCCAGGCTGGAGGCTAAGGTGGGAGGATCAC
TTGAGGCCAGGAGTTGAGATCAGCCTGAGCAACATAGTGAGACCCCATCTCTAAAAAA
AAAATAAGAAATAAAAATCAGCGACGAGGCATAGCGGCTCATGCCTGTAATCCAGCACT
TTGGGAGGCCAAGGCAGGCAGGTGCTTGAAGTCAGGAGTTTAAGACCAGTCTGGCCAAA
TGGGGGAAACCCCTTTTTCTTTAAAAAANTNCCTTTTTTTTCCCCCCCATNGGGGGGAAN
NCCCCNTTTTTCCCNCCCNCCNNGGGGGGGGGGGGGGGGGGAACCCCCCCCCCCCC

Sequence 2726

CCGCGGTGGCGGCCGCCGCGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTCCAAAACAA
AACATGCTTAGCATGCACACTTTTACCACCTTTTTTCGAGNGGAAAGTTTATTGGCAATAT
TAAATTTACCCTAGATAGGATATGAGAATGTTTTGATAAATCACAATTTATAGTATATT
AATGCCATGTGAGAAATTTTGTTCCTCAAGTAAGAGCTCACATGGAACCTTGGTCATTAAC
CTTAAAGAAACCTTTCTCACATATCTATAGGCCTCAAATTGAAATAATCTATAAATGAAT
TTGTAGATTTCTTTTATTTAATTCCTGAGTATACAGGGCAAAAGCTTATNTCCTTTAT
ATAAACTTCTGCTTTGGTCTAAACTGATATATCTTCACGTTGAGGTTTCATCTGAAATG
CACCACGTTTGCTGACTTGCTTCAATATGAATTTGTATGGCTATAAAATTGNGC

Sequence 2727

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTCGGGACTTTAGATA
GCTGGATTATTCTTCTTTTCTTTTGTCTTTCATGTAGTTATTAATGAGATGGATATA
AAACCAACTACTAGGTNCATATCCCCAAAAAATGAAGTCAATATGTTGAAGAGATATCTG
AACTCTCATGATTATTGCAAGACTATTCACAATAGCCAAGATNGGGAATCAACCTAAGTA
TCCATCAACAGATGAGGNGATAAAGATAATGTAGCATATNTATACAACAGAAATNTATTCA
GCCTTAACANCAACAAAATAAATNTTGTCAATTAAGACAACACAGATAAAACCT

Sequence 2728

GCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACAACCTCCACTAACCTGGGAACCTT
GCCCCCATCCCCATAGCANCCACAGCGAGACCTGCCAAGGAGAGTCTGAGCTCAGACA
TGCCTAGCCCTGCCCAACTTGATGGGCCTTCTATCTACCCTGGTAGCTGAAGGCAAAG
GACATATACCCTTGGGAGTTCTAGGGCCCCGCCATCGCCAGTTCCTCTCCATACTACCA
CAGCTGATGCTCTCTGGGAAGTGCCACCTCCCAGCAGCAGGCCAATCAGCACAAAAATAG
AACATTAACCAACCAAGCTAANAACCTCAGAGAATCCATTTACCCCT

Sequence 2729

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTCCCTGTATTTTCTTTTCCC
GAGATGAAGTCATGCTCTGTTGCTCAGGCTGGAGTGCAGTAGTGATCTCGGCTCACTG
CAACCTCCGCTTCCCAGGTTCAAGCGATTATCCTGCCTCAGCCTCCAAGTAGCTGTGAT
TACAGGCATGCATCACCATGTCTGGCTAGTTTTTGTATTTTATAGAGACAGAGCTTCA
CCATGTTTGCCAGGCTGGTCTCAAACCCCTGACTTCAGGTGATCCACCTGCCTCAGCCTC
CTAGAGTGCTGGGATTACAGGAATGAGCGACCACACCTGGTTTGTTCCTAAAAAACATC
TTATATTTCTCTGCTTAACGNGCTCAATGTTGAACATGTGAAATATAATAACTTTTCATA
ATCTCTTCTGATTCTGGCTCTATATCATCTTTGGGNGCTGGTTTAANGGAATTCTAATT
TTCTTGGCAAT

Sequence 2730

TABLE 1
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CTATAGGGCGAATTGGAGCTCCCCGNGGTGGCGGCCGAGGTACACGAGTCTTTTGCTTNC
TCCCACCCCTAGGGGGAAAACTGCTTTGTGCTTTGGGAAGTTGTCTGTGAAACCCGGGG
ACAGAGGACNCANGACAGACTAGGANNGGAGCCGNGAGGATGGGCTGCANCTGTNGAGGA
GGGTTTCANAGGANAGNGGTCNGATAGCACCAGGCCTGAGAAGCCATAGCCTAGGTGGAN
AGAGGTTTGAAAGNGACANAGCGGGCTGATTANCTGCCGTANACNCTTTNATNCCATGTT
ANATAAACATNNTTNAACCCCTTCNTNTTGTCCCAATNNTANAAAAATTAANCCCGG
GCNATGGGGGGGCGTCCCCCTNGTNATTCNCTNTTTAATNAANAGAAAGGGNTTGNCC
CCGGGTNANTTTANTTTNTNACTTTNNGGGNGGTTTNTNTTTATNNTTNTNAAAAA
ANAATTGGGGNGNTNTTCAAANNNTTTNTTGTNNAATNTTTTATATTNTTTTTTT
TTNANCTNNCCNTNNNAACAAAATTTTTTTTTNTNTNCCATATAAAAAAA

Sequence 2731

GGAGCTCNCCGCGGTGGCGGCCGCCGGCAGGTACTAGTTATTTAAATCCACTCATA
ACTTATCGGCCAAAAGTAGTCACATGGGTCCACNTAATNACAAGNGGAGCGGGAAGTGCA
ATCCTACCTTGCCCTGGGGAAGGTATAGAGATAGACCAGCNCTAATGACTACCACACTTNG
CTAAGGTNACATAATAAATAAGCATCAGGACATTATGTGTGGNGGCTCATGTCTATAATC
CCAGCNCTT

Sequence 2732

CTATAGGGCGNATTGNAGCTCCCCGCGGTGGCGGCCGTGNGCNCGGAGNTGGTATTGACA
TAGCCTTTGTAGAAACAGTGCTTGAGTTCGCTTCNTCTTCGGAATAAACTTGGTCTGA
TTACCCCGGGCGTCCCAGGAGGGTGACAGTGAACAGTGGAGCGATAAATCCGGCATTG
GCGGTGAGATTAAA

Sequence 2733

AGGCGGGCGGCNGCCNCNCNCCNGGTACCTGATAAAAAATTTANTNCTCCTTGGCCAGGCA
TGGNNNCTCACACCNGTAATCCCAGCACTTTGGGAGGCCAAGGCCAGCANGTTGCTTGAG
CTCAGGAGTTTGAGACCAGCCTGAGCAATATGGCGAAACCCCATCTCTACAAAATATACA
AACATTANCCAGGTGTGGTGGCNAACGCTTTCAGTCCGAGCTACTGATGAGGCTGAAGTG
GGAGGATGGCTTGAGCCTGGGAAGTGGAGGTTTCAGTTGAGCTTGAGTTTATGCCATTG
AACTCCAGCCTTGGGCGACGGGNAGACNCTNTTTTNAAGAATTTGGAAAAAAAAAAGG
GAAAAAAAAAANNNNANGNCCCTTGGGCGGNATTTNAAAAANATGCNCCNCCCCCCCC
GGGGGNTTTNNGAAATTTTANATTTTANAAGTTTTTTCNNNCCCCNGGGGGGGGGGGGG
GGGGGGGNGCCCNNAANNCTTTTTTTTTTTTATTTAAGGGGGANGNCCCCCCCCNAA
AAAAAANATNTTTNTTTNTNTNNCCNTTNNNNANNTANAAAAAAGN
GGGGGGGGGGGGGG

Sequence 2734

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTATGAGATGGAGTCTC
GCTCTGTTGCCAGGCTGGNGTGCAGTGGTGTGATCTCAGCTCACTGCAAGCTCCACCTC
CTGGGTTACGCCATTCTCCTGCCTCAGCTTCCCAAGTAGCTGGGACTACAGGCACCTGC
CACCACACCCGGCTAATTTTGGTTTTGTATTTTAGTAGAGACAGGGTTTCACTGTGTTA
GCCAGGATGGTCTCGATCTCCGACCTNGTGATCCGCCCCGCTCAGCCTCCCAAGTGCT
GGGATTACAAGTATGAGCCACTGAGCCCGGCCTCTCTGTAGCTTTAAGATGTTCTTAGG
TGACTTATGAGAATGAAAAATGGAGAATTTCCGTCTTCCTGCCATGAAATCAATTAAT
GGCAATTGCTACTGAAAGCTGTTCTGTTTTT

Sequence 2735

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTGG
GGGGTTGCTATTATTGTTATTGTTCTAGATGAATGTGNGAAGCCAAATTATTCAGTGTC
TTAAAGACCATATTAACCACTCCTGCCAGGCGCAGCAGCACGTGCCCATGATCCCACTA
CTTGGGAGGCTGAGGCAGAAGGATCGCCTGAGTCCAGAAATGCTGGGCTATAGTGCCTA
AGTCAATTGGGTATCTGCACTAAGTTCGGCATAAACGTGAGGGACCACAAGGTTGCCTAA
GGAGAGGTGAACCAGACCAGCCTGGAAACAGAGCAAGTCAAACTCCTGTCCTGATGAAG
TAGTGGGACTGCACCTGTGCATAACCACTGTACCTGCCCC

Sequence 2736

TABLE 1
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GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGACAGACGAGATCTCGAT
CGAAGGCGAGATGGCGGACGTGCTAGATCTTCACGAGGCTGGGGGCGAAGATTCGCCAT
GGATGAGGATGGGGACNAGAGCATTACAAACTGAAAGA

Sequence 2737

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATTAACAAAAACAGTTTAT
GTGCAAGGTGTATAAGAAAAGTAAACATACCTTTGGTAAAAAGATTATAAAGGGGCATA
AGAATGTGGATTTTTACCTACATTAAAGGGTTAAAAACAATTATTGTTTTAAAGTTTAA
GCAAGTTTTAAACGTTAATTATAAAGAAAATTCTGTGTGTAAACATATTAGCTAAAGTT
AAAAAGGTATCATCCAGTTTTCTGTGAAGTGGACATTAAAGTAAAAATGCCACAGGTT
TTTCTTAAGCATCAACCTGCTCTTAAACAAAAATTATAAAGGTTAAAAAGAGTCTATA
AAATCTTACCTTATGGTCAAACATGAAAAATTGGATAAATATGTCTCAAGGGTTTATTAA
AATTTAGTTTAAATTAATAACACACTAATATAAAGGTAAATTTAGCTTATCTGGTAT
AAAAATCATACNAGAAACATTATTAATATNAAATGGGGT

Sequence 2738

TCTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTT
TTTTTTTTTGAGACAGNCTCCCTCTGTACCTAGGCTGGAGNGCAGTGGNACGATCTTGG
GTCACGTAAACCTCCGCTACTGGGTCAAGCAGGTCTCCTGCCTCAGCCTCCCCAGTCG
CTGGGATTACAGGCACATGCCACCACACCTGGCTAATTTTTGTATTTTAGTAGAGACGG
GGGTCTNACCATGTTGGCCAGGCTGGTCTTGAAGTCTGACCTTAGCTGATCCACCTGCC
CTGGGCTCCCAAAGNGCTGGAATTACAGGCGTGAACCACTGNACCCAGCCCNNTTGACCTG
TTNTTTATTTTGNNGTTAATGCCAAATNTAAATAATGTTTATGTATAAAGCCCCAT
NTCACAGGGGGGAANTTTTTTAAACAANAATTCCTTTTTTTTAAAGGAAAAAAGGTT
TGNTTTTTGTGTCANCTTNTTTATTCAANGGNTNANCTTTCANAAAAATGANTAATA
ATTCCTTTTTTCC

Sequence 2739

TNTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTACGAAGCCATCTTGGCT
CTGTGGAACCACTCTACATCAACATGAAGAGCCTGGTGTNCTGGCACTACTGCATGATT
GACATAGAGAAGATCAGGGCCATGACAATCGCAAGGTATGTCTCAGGGCCACTTAGGC
TGCCTGGAGGGAGGGCAGCGCTGCCCCCGCAGTGCCTGTGTCCAACAGTTCAACCTTCT
TGCTGTGTAGCAGTGCTTTTGTGTCTCGTNAAGCAAGTCAGCTCACCCTCCTTAGAGGT
TCTGGTCTGTCCAATAGAGAACGGGNGGATTAGCATATGGCTGATTATGAGAGAAAGAA
GCAATNCTAATTTAGGGTGGCCTGACAAGCAAGCCAGAATTGCCTGTGGAAAAGTTATTG
CACTCCTGTAAGAATTCTGGACCCTATTGCTCCTTTGATGTAATGGAAAGTTAG

Sequence 2740

TNTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGGAGGTACGCGGGAAGTGA
ACTGAGGGCCACCCTGGGAGGAAGCCGACTAGGCGAATTCACCTACTGACCGGCCTGGGC
TGCTCTGAGACATGGAGGAAGCCAGTGAAGGTGGAGGAAATGATCGTGTGCGGAACCTGC
AAAGTGGGGGTGGGGGAGTTAANANTATTATCCCANATTGNGGGGCGGGATCCTGCCC
CGGGGGGAAACTTTGGAACATCTCCGCAATAAGACAGA

Sequence 2741

GGGCANGGTACCCACTTGGATGACTGGGGAGAAGGGCTGGGCTGCTGCTGGGGAGTAACA
CAGGCCTTGGGGCAGGGTTCAGGAGTTCATTAGTCTGGAGTCCAGATCGCCACCCAGGGC
CCAGCCTGATGTAGTGTTGCGGTTCTCTCAGCGCTGCAGTTTTCCGATAAAGGAGAGGAC
TCCTGTGTGCCAGAGCTCTGAATGGGAGCCTCTTCTCAGTCCAGCCAGGCAGAGGGTGAG
GCTGCCACCTTATGGCCACTGGGGGAATTGGCTCTGGGCTTGGACTCCAATAAGGGGCCG
GGAGCTGCAGAGACCTCCAAAAGGTCTCTTAAGTCTCCTCCAAA

Sequence 2742

CCGCGGTGGCGGCCGAGGTACTGCCATACCTGGCTAATTTATTTTTGTGGAGATGGGAT
CTCATTGTTGTCCAATCTGTTCTCAAACCTCTGGCTTCAAGTGAGCCTCCTGCCTCTG
CCTCCCAAATATTGGAATTATTGGCATGAGTCAACATGCCAGATCAAGAAAATATTTAT
GTATAATTTTATCATACCTCATTGGTCCTAATGTTTTTTGCTTGTTAGGTCCCTTCTA

TABLE 1

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GAGATAGGAGAAGAGAGAGATCCCTTTCTCGGGGAGAGAAATNCAAGCCGTCCCGATCCT
CTTAGGGCTNGGAGGTAAAATCNTTTGATAACTTTGTATTNAAAACCTTGCATCCATAGT
ATGCTAAGGCNTTNTTTANCCCCAAAAAATTTNCCTTAAAAGTTTTTTNGAATTNGCNC
AAAAAGGGCCCCNAANACCCAAGNNAAGGGNNGGNNCTTTTTTTTT

Sequence 2743

CCGGGCAGGTACTTTTTTTTTTTTTTTTTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTCCCCNGGNNNNAAAAATTTAANNNGNNNGGAAAAAANNCNGGGGAAAAANG
NNCCNTTNTNNNAANCCNTNAANNAAAAAAANNCCNNNAANNAAAAAAACCCCAA
AANNNNNTNNNAAAAAANCNTNGGNNNAAAAAAAGGGGGGNGNNANTTTNNNNCCC
CAAAAAANGGTNNGGNGGGAAAAAATTNNTTNCAANCCANAANTTNANTNCAAAAAAN
CCNTNNTTCCNTGNCCNTNNAAAAAAANGGGNACCCCCNGGGGGANANAATANNAAAA
AAATTTANTTTAACCCCCCCCCCAA

Sequence 2744

GGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTGGAGACGGA
GTCTTGCTCTGTGCGCCAGGCTGGAGTGCACTGGTGCGATCTCGGCCACTGCAAGCTTC
GCCTCCTGGGTTACACCACTTCTCCTGCCTCAGCCTACTGAGTAGCTGAGACTACAGGCA
CCCGCCACCACGCCCGGCTAATTTTTGTATTTTGNAGAGAGGGCGTTTCACTGTGTT
AGCCAGGATCGTCTTGATCTCCTGACCTCGNGATCTGCTCGCCTCGGCCTCCCAAAGTGC
TGGGCTTACAGGCGTGAGCCACCACACCCGGCCAGTCTTGTGTCTTAAATACCATTTC
ACATTGACACCTCCAGAATTTATCTCTAAACCTGACCTCCAGAAGGTGCAAGCANATT
GTGTAACCATGTCTCCACTACACGCCTAAAGGCA

Sequence 2745

CCGGGAGGTGTCCGAACAGGCAGGTTGGTGGGTAAAGGTCTTAATCTTGACTCGAGATC
TCTCCCCGGAGTTACAGAGTAGGCGACGAAGCCGAAGCAGCTGGAGCGCGACCCGGAGG
AGTCTGACTTCTCGTTGTCTTATAATTTTCATTCTGTTGCTTTCTCATGGACTTGCGGC
TGGGGGAGGATCCCCGCTGGTCCGCGAGCANGCGGGCGGGTAAAGGTAGGCCGCGAGAGC
CAGGTTATNGAGAGGAGAGGAGGC

Sequence 2746

AGGTACCTGTGACTAACAAGGGGTCTGGGAGGATCTGCTGCTCCCATGCCCTCCTTTGTG
TGTTTTAAATCTGTTGAGCCTTCTGGGCTCCTGCGAATTAGGGAGTGGCAGCTCCTCAG
TCTAACTCCTATTGNGACCAGGTTGCCTAATTGGCCCTTTGGTTTGGGCACCCACTGTCC
TTCTGCGTGGTTGGATAGATGCTGCTCCCAATGTCCCTGATCTCTTACAGACCCCTCTGA
TTCTTCACTCTTGGCTTTGAGAGCCCCTGATGCCCTGCAGTCTTGACTGAGCTTCTAATG
GTTGATCAGACCCCTGAATGTTGAGCTCTTCCATACTAGACTTGAATATTCTCCTG

Sequence 2747

GGCGGCCGCCCGGGCANGGTACANGACATTTTCAAAGTTGCCAGTGTTACTTTAATTGGA
CTGCCCTTCTGAATTCATTGCCTCTGCTTCAACAATGTGCAACTCATCCTTTGCACCAGCC
CCTAAACTGACCGTTCTTAAAGATAGCTGGTGCTCATTTTCATCATTATCCACCTTAAAG
NGATAATCTTTGTGCGCCTTTAGTTCACAACCGAAAAAGATAGTTCTGGGGCCTNAGGGGG
CTCATGTCCATGTCCATCGAATCTTCCATNGGGNGGCGGCACNCNNTTTTTNTAGNAAAG
AAGGCGGNCGGAANATAAAAAAACTNTNCTCCAAAAAACACCCGGNGCANGGAGGGNA
NTCANACCAGGGGCCCGTTTNCCTNGGATCNTTTNATAAAAAAATNGGGGGNCCCCCN
CNGNGNNNGGNGNAAATTCTAATNNTAAANTTTTTANCCCCCCCCCCCCCTNNGGG
GGG

Sequence 2748

CCGGGCAGGACTTGGAAGCTGAGGCATAAGAATCACTTGAACCCGGGAGGTGGAGGTTG
CAGAGTGAGCCAAGATCGCAGCACTGCACTCTAGTCTGGGTGACAGAGCAAGACTCTGTC
TCAAAAAAAGACTAGAGAATGTCAGGGAACACATGTGTATTTAAACAACCTTCACT
TTTGCAATTAATAAATCTGAAGGACAGCGAAGGTGAAATCAATTCACGGGCCACCTAACT
TTTCACTTAGGACTNAGAGCTTGTANCCATNGATCTGTNNGGNTTGNACCTCGGGCCGN

TABLE 1
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TTCTANAAGTAGTNGNATCCCCCGGCT

Sequence 2749

CCGGGCAGGTACAACATGAGACATGACGCCCTTCGGGACACATGCCTGAGGTAGTGACAA
TCCAACTTTGGAAGAGTGGAAGCCCTAGTTTCAAATTCAGCATGCTTTGAGTATAAATT
AAGTTTACCTCTTTTTGCACAGCAACATGGCCAATCTTCTAAGCTGCTCAGCTTACAA
GAAAAGGAATCATACTGCTAAGAATTCAAATTCAGCAGTCATAGGTAAAGTAAGGGAAG
TTTTNTAAACNTATTTTTAGCCCCNTACCCNGAACCTNGNAAATTTTNGCNAGGGTT
TTTTCAATTTTTCNAGGGACAGGTTGGGGTTTCTTAAATCCANAGGGCCTTTGGAA
NACCNTGGAANAAACCAGACCCTTTTAAAAAAGG

Sequence 2750

CCGGCGGTGGCGGGGTTTCGCCATGTTGGCCAGTCTGGTCTTGAACCTCTGACCTCAAGTG
ATCCACCCACCTTAGCCTCCACAGTGCTGGGATTACAGGCATGAGTCACCACACCCGGC
CAGTAGAAGCTTTTAAACCTGAAAAATCAGTCAACTTTGCAGACTAGAGGAGGATGTTGA
ACACCTATGTGTGTATTTTTTTCTTTACCAACTATGCACCTATTTTTTCAGACACCTAAA
AGTAATGTCTGTGAAACAGTGGGTTTTCTTTTT

Sequence 2751

CCGGGCGAATTGGAGCTCCCCCNGTGGCGGNCGCCCGGGCAGGTACAATGCTTATAAAA
TTCAATAATTTGTATTAAAATACAAAATCCNATAACAACCAGGAGTTCTTCGGAAGAAAA
AAAAATCACAAAACAACCCCAACAGTGGTGAAGAACTA

Sequence 2752

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCAAAAGCTCCAGATTATTTGGAAACCA
TGTTTTCTTCTAGTCCATGGTAACAAGAAAAAGCCANTGGAAGCATCATTCCAACAAT
AATCTCCAAAGATGGTGGCAACCAAGTGTCAAATGGGGACTGCAGGCACAGAAGAGACCA
CCCCAAACCCTGCCTGGGTGGACGAAGCAGGTATGCTAGAATAGTCCTGTCTGCAGAAT
AGGGAACGGCAGCTTGGTCGATCTGTGCCCTGGAAAAAGAAAATGAGTTGCAATAGAAGT
GACTNTAAGACAGACAATGAACCTACTNTTAAGAGAGACAGGGCCAGGCACGGTGGCTCA
CGCCTGTATCCCAGCACTTTGGGAGGCTTNAGGCGG

Sequence 2753

GGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGCAGAGACAATGGAATAAACAGCCAAG
AATGTTAAAATAGCTATTATAAATATGATCCTTATGCTCATAGAGAAAAGGAAAAATATA
AGTATAATGTGAAAAGAAATGGAAGATATAAAAAGAAATGCAACTTCTAGAGGTGAAAAA
TATGTCTGAAATGAAAACACCATATAGATGGAATTACCAGGAAATTAGACACTGCAGAAG
AAAAAATCCATGATGTTGAAGTATATTGCAATTAATACTATCCAAAATGAACTGAGAG
GGGGAAAAAGCCCCTGAAATGTATGAAGAAAGCCTCAGTGACCTGTGAGACAATATCAC
AATGGCCTAACATAAGTGTAAATTTGGAATCCCCAGAAGGGGTAGCAGGCCCGAAAAAAT
AATTGTTTGAATAAAGGGNCAAAAGGTTTTCCC

Sequence 2754

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTATTTTTTTTTTTT
TTTTTTGAGANAGTGNGTGACTNTGNCACCAAGGCTGGAGGGNNGNGGNAAGANCATAG
NTCACTGAAGCCTCCATNTNTGGAGTTNAAGGGATCCTCCCGCCTCANTCTCCNAAGCTA
AATTTTTTTTTTTTTTTTTTAGNAANANACATGGTTTCACTATNTTTGCCAGGCCAG
GTCTAAACCTTNTNACTTNAANGCAANTNNCTTCTNCCCTTAANCCTTCCAAAAGGGN
TTTTGGNATANNNTNANACNCAGNCCCTTNTNCCCTGGGCTCTTCTNTNTTAAAGAAAG
GACACTTTAAATCANTTTTTNCNCNCNCAGAGATNAATTGNGCAACAAACANTATTANGT
TGGGGTTTTATTTNAGGGTTCTNNCCCGGNNNGGTCCCTTTNANAAAANNTNNGGGAAN
CCCCCCCCGNGTNTGGGGGGANTTNTNANNNTNCAANTTTATTTTATTNCCCCCCCCCCCC
NTCG

Sequence 2755

CGCGGGGGCGGCCGGAANGGNCCNGGAANGGNAGTCANGCAGGGAGCGTCTGTCCGAAC
GGAGGCTAGGTAAGAATATTTACCATGAAATGTATAAAGACATAAAGGAAGGAGCTAA
ACAATATGGACCCANCTCTCCTTATATGAGAACGTTATTAGATTCCATTGCTCGTGAAA

TABLE 1
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TAGACTTATTCCTTATGATTGGGAAATTTTACCTAAATCTTCCCTTTCACCCTCTCAGTA
TCTACAGTTTAAAACCTGGTGGATTGATGGAGTACCTCGGCCGCTCTAGAACTAGGGGGA
TCCC

Sequence 2756

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTGGAGNGAAACAGGAGTGCTTTATGGTCTGAGTGGAGTGTTG
GGAGGAGTNCCTCCCGGNTCCTGCCTTGGGGCTCACCTCCCG

Sequence 2757

CCGCGGTGGCGGCCGAGGTACATCTTCTCCTAAAAACAAGGGTAGAGCCAATGGAAAGTA
ATGGTTCTGTTACATAGAATGAGTTGTCGCTTGATCTTAAATGATGTATTGGTAGATAT
ACTTCCCAAGTGGATTAAAAAGTTAAACTTACAGCATAACAAAGTATTAGACTTACTGA
GGTGACTTGAATATCTCCTTTTGATTTTCACTCTATTTTCTTTTCACCCATGGGAAAT
GATAATTTTAAATAAACCAAGGCTCTTACCATAGCTGAACTTTAAACTTAGACTGTCT
TTTCTGTAAACGATTCTGAGGCAAAGGGAAATGACTAGAAGAGGATGAGTAAACAATAAC
CTGAAATGGGAAACTCGAGGGAAGCACAGGCTTTTTTTTGGTTTGTGGTTGATNCGT
TTTTGGTCTTTG

Sequence 2758

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGGCCGGTGGGCT
CCCTGACATCCCTTCCAGGCAACCTGAAAGCACTGAAATAGCTTATGGCCCTGTGCCAGG
GACCTTGGCCCAAGCTGCTGACCTCCAGGGTGGGGAGGGAGCTACCCCCAGGAGAAGAGT
CACTCAGACAGCAGTATGAGCAAGCCAGCCAGCAGCTCCGTGCCTGCACCCAGCTCAGGG
GAATCCAGGGGGTTCAGATGCCAGGAAGGAAAAGGGGACAGCGCTACTGCTATGGAAT
GAGACCACCACTTCTCCTGTTGTCCTTCCCAGCTTCTCCCCAACCTCCCTTTTCTAGT
TTATAAGACAGGAGAAAAGGGGAGAAAGCAAAAAGCTGGAAAGAAACAGAAGTAAGATAA
ATAGCTAGACGACCTTGGCGCCCCACCTGGCCTGGGNGGG

Sequence 2759

CCGCGGTGGCGGCCGCGCCCGGGCAGGTACAGAAAATTAGCAAGAGACATTTTCTGCATTGT
GAGAAATCAACATAGACACCTTAAAGACCCCTTTGAGAGTGTGGCTTTTTGAACTTTTCA
GATTTTGCTCAGTGACCTGCTAACACTTACGTGAGAGGCTCCAGGTGTAAATAGAATCTA
ATGGCAGAATCTGTAAGTGTAACAAGCATCTTAGGAGTGAGAGATCAAGACCACAAAAT
GTCCAGAGCTATGACCACAGCTATACCTACCCATAAAATACGATACTGGAGTAGGGTATT
TTTGTCTTTTTTCTTACCTAAGAGCTAGCTAATCAGGACAGGTGATGCAGGTTCTGGAG
CTCTACCAGGGCAAGTTCTATTTTCTTTTTTGGAGACAGAGTCTCACTGTCGCCCTG

Sequence 2760

CCGCGGTGGCGGCCGCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTCGAATATTNCTTT
CAGTGTTCTCAGATTGACTTGACCAGCCTAAGACAGATGCCAGGGACATCCTCTTNTNTG
CCTNTNAACACTTCAGTCAGATGGGAATATGGAAGGATCATATNCAAGAGGATCATATTT
TNTGAAGCCAATCCATTANATGTCAGGAAA

Sequence 2761

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTGTAGATGTTCTTTGGTATCTGGGCA
TTGAAGAATTAGGTATTTATTATAATCTTCACAGTCTGAGCTTGTTCTGATGGTCTTCTC
TTGGAAGGCTTTCTAGATATTCAGAAGGACCGTAGGTGTTGTGATCTAAGCTGTATCTG
CTTTAGAGGGCACCCGAAGCCCCGTAATGCTCTGGTCTTGCAGACTTCTGGAGATACTG
CCTTGATGGTCTTGGATAAGATTTGGAAGAATCCTCTGGATTATCAGGCAGAGACTCTTA
TTCTCTTCTCACTTTTCCAGAGTCTTCTATGCTGAGCTCTCTGGAGCTGGGGGAG
G

Sequence 2762

TNNCCGCGGTGGCGGCCGAGGTACTGTCCAACCAAACTTTCCACNGNGAAAATTTTCTT
GGGTGAGCCTCCAGAAAAGCCCAGCTTAGTGTAAGCCAAAGACCTCCCAAGTCTGTCAC
CAATTTTTTCCCTATTACTCACCTGATCATGTGGGCAATATCCAGTTGGTCTCTGTAGA
CAATGGTCCCTCTATTTCAACACCTTTTTCGGTGACAGTGGCGATTTGAAACTGGAAGAA

TABLE 1
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AGCAGAGCATTCAATAATGCCACGCCTTAAGTCCTTAAATGAAAGGTCAGGTGGAGGTC
TTCCCCAATGTGAAAATAGGAGTCACACAAGTAAGGCGNATCTGTTCTTCAAAGCATAGG
CTC

Sequence 2763

AGGTACTATAATCTCCTTCTCCACTGGCAAACAGATTATACCAGAAAAACAGCAGTTCCCT
ATGGAGAACAAATTTACAATTATCCCCAAGTATACAATGCCAGGTAATTGCTTTCCGGTAG
TTATTACTTTTTTTTTTTTGGAGACAGAGTCTTTGCTCTATCGCCCAGGCTTGGAGTGCAA
TGGCTCGATCTTCAGCTCACTGCAACCTCC

Sequence 2764

GCGGNCGAGGNACAANCNACTTGGGGGGGCGANAAAAACNGCCCCCCCCACGANGAGAAGG
GGACNANGAGAANNNTTTACACACAAGNGGGGGANNNNCCCCNAAAAAACCGGGCGCAGN
GGCNACACNNNGNAANNCCAGNACNNNNGGGAGGCCGAGGCTNTTTNAAAAAATTNNT
TTNGAGGGGGGGGGGGCCCCCGN

Sequence 2765

CCGGGCAGGTACGCGGGNTTCCGCGGGGCTTGCTGGGAAGAGAGGCGAAGCCAGGTCACC
TTTCAAGGACCCAGAAGTAGGGTTTTGGCCTAGGTAACCGGGGCAGAGATGTGGTTCGAG
ATTCTCCCCGGAATCTCCGTCATGGGCGTGTGCTTGTTGATTCCAGGACTGGCTACTGTT
TNCCT

Sequence 2766

ATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACTACCCTCTGCTTTTGAAG
GACTCTACTGTGTCACTTAAAGTGAGACAGGTGCATATGTATACTAGTAAATTTCTCTGC
TTTCTAGCATTGGACAAAAACAAAATCAACAAAAGAATTGCCTCAGTGTCTTAAACTG
GGATCCTTACTAGTTGACTAGGCACCTTAGTTACTGAAGGATATGTGTGGAATTCAGTTC
TTTTCAACCTATAAGAAATATCCGGCCAGGTGCAGTGGCTCACGCCTGTAATCCCAGCAC
TTTTGGGAGGCCGAGGCAGGAGGATCACAAGGTGAGGATTNTCAAGACCNGCCTGGCCAA
CATAGTGAAATTCCTGNCTTCTACTAAAAATN

Sequence 2767

CGGCCGCCCGGGCAGGTACTATTACTAGGTTTATTGTTTCCAGAGGGGTGAAACGGGGCT
TTGGAGAGGTTAAATAACTTGCCAGGGTCACACAGCTATTAAGTGGTAAAGCTGGGATT
TACATGAGCCAGACAAAAGAACCCAAGAAGCTAAGCTATTNTCTTGTAAATACCTNCAACA
TAGGAGGCAAGAAGTGAGGTATTATACAGGTTGAGGAGATA

Sequence 2768

CCGGGCAGGTACGCGGGCATCAGCTCCGTGGGAACCTCACGAGCCTGGGGAGAGTTCGTCA
TCCCCACATGGAACCTCAGTATGGCCAACAGGCAGCCCTCTGGTGGAAAAATCAACAATC
AGTCCTTGCANCAACTTGATGGAACNCTAGTTGACCACCATAAAGATGTCAAGCCAGGCA
GCA

Sequence 2769

AGGTACTACTGCTGAGGTCTCCAGGACAGAAGTCACCTCCTCTGGTAGAACATCCATCCC
TGGCCCTTCTCAGTCCACAGTTTTGCCAGAAATATCCACAAGAACAATGACAAGGCTCTT
TGCCTCGCCACCATGACAGAATCAGCAGAAATGACCATCCCCACTCAAACAGGTCCTTC
TGGGTCTACCTCACAGGATACCTTACCTTGGACACACCCACCACAAAGTCCCAGGCAAA
GACTCATTCAACTTTGGCTCAGAGATTTCCACACTCAGAGATGACCACTCTCATGAGCAG
AGGTCTGGAGATATGTCATGGCAAAGCTCTCCCTCTTCTGGAAAAAT

Sequence 2770

CCGGGCAGGTACAGTTGGACCTGCTGGCATTGAGGGCCCTCAGGGTTCACCAAGGCCCTG
CTGGCCCCCTGGTCCCCCTGGCCCTNCTGGATCTCCAGGTGTAAGCNGTGGTGGTTAT

Sequence 2771

CCGGGCAGGTACTGTAGATTGAGATATAACAAAAAGATGATTTCTGAAATAATATTGGGA
AAAGAATTTACCGGATGGTATTTTGTATCTTGCACACCTCTGTTGTTATGATGCTATAA
GGCAATCTTGTCCAACCAGCAGCTCACAGGCCACATGCCACCCAAGATGGCTTTGAATAG
GGCCCTATACAAATTCGTAAACTTTCTTAAAACATTATGAAATTTTTTTTTTTTTTTTTT

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Sequence 2779

TABLE 1
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'ATTGNAGCTCCCCGCGGTGGCGGCCGAGGTACATTGCTGGCCTTTGCCCAAATTATGCTT
NCCCCATTTGGTATGACCTGACACCATTGTGATCAGTCTGATGACCTGGCAGCATCCCAT
CTGCCTACCCAGTTCACTNTTGTCCATTTAGGGCCTCTTACAGGCAACTNCTNACATA
TATTTTGGACACTGACTCATGCCTTCTNAGGCTNAGCTAACATCAGCCCATTCAATTGATN
CAGCAAGACAATTTGAGAACCCTATGTGCTCTGCCAGAGTGAATAACAAAACCGCAAGT
ACCTNCCNGGGCGGNCGGTCTAGAAGTAGT

Sequence 2780

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTTNTNCCTAACCAAGTTCTAACNCAAGTCAATTAGTTTTTCANAAGTCTCT
CTCTTCTCATGTTTTTCTGCTTTGAACTCAAGNGTTNTCTTTACTTA

Sequence 2781

GGGGGGGGNTTTGGGGGGGGAAAAAGCCCCGGGCGGGAGNGGACAGAAAAAGANNTNGGG
GNNGNGAGGGGGTTAGGAGNAANCCCNNGNGGGTTTTCCNAAACCCCGAGNGANGCCGGG
NCGGCNGNGCGCGCANNGGAGGGCAGNGCTATGNANCCGNCNNGGNACNCCCAGGCCCN
GGGNCCACGNGGCCCNCCGGCACGNACNGGCCGNAACCCNCGGNAGGNCAGGCGAN
GNANCCCNCGCANANNGAAGGAAAAAAGGGGAAAAGCGGGGGCAAAGAACCAACAAC
NCNGGGGGAACCAAGCNAGGGAACCCCGNGAGAANAANANANANANANANANANNGG
GGNGGANAGNAANAACAAAGGGAAAAANGGCCCGGAGGCGNGGAAAACCCAAAAAGAGAG
GNNAACGGGGGGCGGNNAANNGNACCANNGGCGNAAAAAAGANAAAAAGAGGGCNCN
GGNGGGGGGGNCGNAAAAANAACACACGGGACCCCNNAAGGGGGANACCCNCNCGGG
GNGCCGGGGGGNCCCCAAGNAAAACCNAAAGGGAGGGGNANNNCCCCCCCCCGNGGGACC
CGNANNAANGGGAAAAANCCCCGGAANGAAAGNCAAAAGGCCCNNGNAAACCGGNAAAAA
ANCNCGGGGNCAGAACCCCCCNANANGGGGGGGGGGGGGCCCNAGGGGNAACCCCCCA
AGGCCCGGGGGGGGGGNGNNCCCCCNNNNCAANNNNNNNNNNAAGGGGNNCNAAAAAA
AAGCCAGCCGCGCNGCGGGNCGGGAAAAAACNAACGGG

Sequence 2782

TCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCATGCCGATCTCTGAGAAGTTNTGTTGCA
CCACTGTGAAGGTCTAGATGCAAGCTTGGCTCCCTCAGAAAGGCGCTTCCCTTTTGCATG
GCTGAGGATCCTTGAAGGAACCTGGTCAGTCTCCGGTTCAGCTTCCGACACCAGAGTGGA
ACCCAGTAAGCACCATCAGGAATGGATTTCACTACAAGTGTGGATAACTCTGATTTTCAA
AGGAGTAGTTACTTGCAAATTACATCCTTGCTGAATTCAGGAGGTATGAAACCCCTATTTT
ACCATGTTAGAAAACAGCCCAGGATTTTCTCATTGCTCTGCCATCATATATGTCTATGAC
TTGAGCCCTTATTTTCCATCTGCAAAACAATAATGCCTATATGTCTTTGCATATAGATT
TGGAATCTTCATTCAAGTTTAGTAGGATCA

Sequence 2783

CCGCGGTGGTTCGAGCGGCCGCCCGGGCAGGTACTTTTCTTCTTGAAGTGAGTTTAGATCA
CGTTTCAGCAAACGTCTCTGGAGCTCCTTCTCTGGGGAAGGAGCAGCGGAGGGCTGTC
ATCACCAGTGCATCTTCCAACCTTCTTCTGCTCATTACCCAGTTCCATCCTCATCTG
ACCATATTACTCCAGGAACCTTCCCTTTTCCCTTGTAATTCTGTTCCATTTTGGCCAAA
CCATGGTTTGCCTCTGCTGCATTAGTTTGAAGTCATTTTTTTCCAGACATTGTGGCGGT
AGTTCCAGATGTCCGAAAAGATGAAGTTATCAGTGCACGAGCAGCCAGGGCTTTTCTTT
ATGTTGATTACCTTAGGACACAGCCCAACAATGCCTGCAATTGTCATTAGCCCGTGAAG
AGGTTGCTTAGGGCTGCCACAGCACAGAGTCCAGCTGCGCCCGTTTCTTCCCCCCCC

Sequence 2784

CCGCGGTGGCGGCCGAGGTACTAATTTTTTTTTTTTTTTTTTTTGTATTTTATAGTAGA
GACGGGTTTACCTTGTAGCCAGGATGGTCTCTATCTCCTGACCTTGTATCCGCCAC
CTCAGCCTCCCAAAGTGCTGGGATTATAGGTGTGACCCACCGCGCCCGGCTGAATATCT
TTTTTATTTTAAAGCTTTCAATAAATCTTACTGACATCTAATTGATAAAAGTTGCACATA
TTAATGTATACATTTTATGAGGTTGGACATATGCATACACTNGTGGTACCTGCCCG

Sequence 2785

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT

TABLE 1

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GAGACGGAGTTTCACTCTTGTCACCCAGGCTGGAGTGCAATGGCGCAATTAGGGTTCCT
GCAACCTCTGCCTCCCGGGTTCAAGCAGTTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGA
TTACAGGCATCCACCACCGTGCCAGCTAATTTTTGTATTTTAGTAGAGACGGGGTTTT
GCCATGTTGGACAGGTTGATCTCAAACCTCCTGACCTCAGGTGATCTACCCTCCTCGGCCT
CCCAGAGTGTGGGATTACAGGCATGAGCCACCATGCCAGGCTGCTAATCTCCTTTTTA
GTGAGTTAGGGAAGTGAAGCCTCAGAAAACCTAAACGATTTCTCAGAAAACACTCAAGTGA
TAAAGTGGCCCCATTGGAAAGGAGGTTTTATCTTCTCATTGGCAGGCCAGNGTTCATT
GCACAATATCATGCTACCTCTTGAATCTTTAAAA

Sequence 2786

TCTTAGGGCGAATTGGAGCTCCCGCGGTGGCGGCCGAGGTAATAATTTTTTTTTTTTTT
TTTTTTTGTATTTTAGTAGAGACGGGTTTACCCTTGTTAGCCAGGATGGTCTCTATCT
CCTGACCTTGTATCCGCCACCTCAGCCTCCCAAAGTGCTGGGATTATAGGTGTCAGCC
ACCGCGCCCGGCTGAATATCTTTTTTATTTTAAAGCTTTCAATAAATCTTACTGACATC
TAATTGATAAAAGTTGCACATATTTAATGTATACATTTTGATGAGGTTGGACATATGCAT
ACACTCGTGGTACCTGCCCG

Sequence 2787

CCGCGGTGGCGGCCGAGGTACAATACAATCTAGATGACGGTGACAGCTAAGTCAAGAACT
AAAGTTGTGCAGTAACCCGAGTTAAGGCATGAATGCGGACACACACATGCACACACACAG
CACCCATGCTATCAAGACACAGGATTTTTTCAGTTGCCCTCATGAGAGGCAACCTGGGCTT
GGCAGTTAATCAGAACTGCTGAGCATTCCAGAAAATGCCCCCACGACTTTATGCTAACA
GCTGTGTGTATGTTTTAATCAAAAAATTAAGAAGAAAAAAACCTAAAAACAAAGAAA
AAAACAAACAAAAATCACCAAAAACCTAGAAACCCCTTAATCTCTTACAATGGCTCTTG
AGCATGGAAGTCAATGTAGCAGCATCAATGGCTGGCTCTTTAACAATTTGGAAATAAAGG
TTGGTTTACTATGATTTCTTTGGTAGTCATCACTACCAAAGTT

Sequence 2788

CCGCGGTGGCGGCCGAGGTAATTTTTTTTTTTTTTTTTTTTTTTGCTTNNATGTCTTTA
TGTATTTATTTTTTTTGTAGACAGGGTCTTGCTGTGTTGCCANGCTGGAGTGCAGTGGC
CTGGTCATGGCATNAAGGCTCACTGCAGCCTGGACCTCCTGGTTCAAGNGATCCTCTTGT
NTGAGTCCCCTGANANAAAAACCCACCCCNCTACANAAATTTNTGGAACANGGGCN
NNAANCTGTTNCCTANGCNTGTNTGGAACNCCTGGGCTCAAGGGANCTTGTANCCTTANC
CNCCTAAAANAGCTGGGANTTATAAGGCATGANNNAATTGTANCCTGNCCCCGGCGGGCCN
CTTANAAAAAGTNGGAANCCCCCGNCCTTGCAAGGAAATTTATTATNCAACNTNTNN
NAATCCCCCCCCCCCCNCCAN

Sequence 2789

CCGCGGTGGCGGCCGCGCCGGGCAGGTAATTTTTTTTTTTTTTTTTTTTTTTAG
NAGANATGGGGTTTACCATATTGGTCAGGCTGGTCTNGAACTCCTGACCTTNGACCCA
CCCGCCTTGGTCTCCCAAAGNGCTGGGATTACAGGCATAAGCCCCCGTGCCCGGCCACA
TGGTATTATTTATATAAAACGCAAGTTAAGTNTTATGTGTGAAAAACTTTTTTTGAAA
CTTNTCAAAAAAGAAANTTNACTTATTNGTTAAAAACNTTTTTTGNCTAAGGGCCAAATA
NGNGAAAAAAANCCCNATTNNCTTTTTANATTTTTNTTGGCNAAAAANTNAAAAAAN
ATTTNNCNNNTTTTTTGNGNNTANTAAAAAAAGGGTTTTTTTNTTTTTTAAAA

Sequence 2790

TACTATAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGCCCGGGCAGGTAATTTTTTTT
TTTTTTTTTTGAGACGGAGTTTCACTCTTGTCACCCAGGCTGGAGTGCAATGGCGCAAT
TAGGGTTCACTGCAACCTCTGCCTCCCGGGTTCAAGCAGTTNTCCTGCCTCAGCCTCCTG
AGTAGCTGGGATTACAGGCATCCACCACCGTGCCAGCTAATTTTTGTATTTTAGTAGA
GACGGGGTTTTGCCATGTTGGACAGGTTGATNTCAAACCTCTGACCTCAGGGGAATTAA
CCTTCTTNGGCTTCAAAAAGGGTGNGGGATNAACNGGGTTGNGCCCCCCCCCCCCNGGG
GGGGGAAAAAATTCNNTTTTTTTNGGGGGNNGGGGNNNCAANNCCCCCNAAAAAAN
NNNNAAATTTTTTTTANAAAAANNANNCCTTTNTAAAAAATGCCCCCNCCCCAANG
NNGNNGGGNTTTTTT

TABLE 1
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Sequence 2791

GGTCTTCTATGTGGGTGTCAAGGATATGCTCCCTCACGGCTTCGAAGGCCCCCAGCAAA
AGATCTAACATTCTTGCTCAAAGTTGCGAGAGAAAGTAGCACATGGAGTAGCTGGGTGG
GGCGGCGGCCTCTTCTCTTCAGCTCCCTTAGCTTGGCTCCGTAAGTGGATCACTTGCCAA
ATGCTTTAGATGATTGCCTCTCAATAATTGAAAGGTGGTGGTAAGTTGTATTGCTGCACT
GTCGGTGTTAAGAGAAATTACTCTCACAAGAGCAGAGGCCTGAAGATTCTTCTTCTGAA
GGGATGATGAGCCTGGACTCTCTGGACTCCTAGATTATGAACTCCTGCAGTGGACCATGT
CCTATTTTTTGGAGGGCGTTGGG

Sequence 2792

CCGCGGTGGCGGCCGAGGTACCTTCAATACCTTTAGTTGTCTCCACACACGCGTGTGTG
TGTGAAATCTTCTACAATATCTTCCCTTTTTTAGACCATGTTCACTGTCAAAAAGGTGCT
TTAAGAGCAGTCTTTGGCTGGGCACGGTGGCTCACACCCGNAATCCCAGNACCTGGGAG
GCCGAGGCAGGCGGATCACCGAGGTGAGGAGATCAAGACCATCTTGGCTAACAGGATGGT
CTTAAGGGACAGNGAAACCCTGTCTTNAACTTAAAATACAAAAAATTANNTGGGCGTGGT
GGGNACCGCNCCTGTAATCCCANCTACTCAANGAGGCTNAAGGCAGGANTAATCACTTTG
AACCTGGGAGGTAGAGGCTTGAGTTGAGCCAAGATTGCACCCACTGCACCTTTCANTCCT
GGGCCGAANAANAGCCANGGACTTTCATTTTTAAAAAAAAAAAAAAAAAAAA

Sequence 2793

CCGGGCAGGGACCNCGGGATGGTGNCAACTTATGACAGGACCCATGGGGCCCTCCCNATGC
ACACAGNACTNTTGAATCTNATCCTTTTCCATGGCTCTGGCTCACACTTNCACAGNATT
TACTCCTAAATATGCCCCCTGNGTTCA

Sequence 2794

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACANATTTGAATGGCTTTGA
CTTTTGGCAGCTGCACAGNGCTAGGACTGGACCATGAAATATCTNTGGGCTNTGNCAATN
ACATTTGGGTTAANCTAANCCTGATCCCATGTGTTCTCTGGAAGAGAAGCCCCATGACATT
CAAAGTCCTTGACAATNTGACACCAGCTTTTNTAACNTATAAGGCCC

Sequence 2795

ACTACTATAGGGCGTGCAGCGGCCGCGCGGGCAGGTACGCGGGCACACTGAGGAATTATG
ACTACTATGCAAGCCGAGTTCCAGAATCTATTAATAATGCACTTGTTCTTAAGGGAAAG
TTTCATTTGGCCGGGCGCGGTGGCTCATGCCTGTGGTCCCAGCACTTTGGGAGGCCGAGG
CAGGTGGATCACTTGAGCTCAGGAGTTTGAGACCAGCCTGGGCAATATCGTGAGACCCCA
TCTCTACAAAAATACAAATTAAGTGGGCATCCTGTATGCGCCTGTCTGCCAGCTACTT
GAGAGGCTGAGGCAGAGGAATCTCTTGGGCCCGGAAGGCGGAGGTTGCAGTGGGCTGGGA
TCGTGCCACTGCACTCCAGCCTGAGTGACAGGAGTTAAGCCCTGTCTCAGAAAAAAGA
CAAAAACCCAAAAAGTACCT

Sequence 2796

TACAGAAGCCGGGAGCATAAAGACGTATAAGCCTNNGGGGTTGCTCTAATGTAGGTGAGG
NTAACATNACATTANATNTGNAGTTGNCGCCTNACTTGCCCCGCTTTTCCAGTTCGNGG
TAAACCTTGTCNTTGCTCAGCNTGCATTTTAATTGTAATTNGGTCCAACNGCGCTGGANG
GAGNAGGCTGGTTTTTGCCGTTATTTGGNGCCGCTTC

Sequence 2797

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGATGATAAT
AAGATGCAATTTGAATCTTCATCATACGAAGGATACTTTCTAGCTTGTAAGAAAGAGAGA
GACCTTTTTAACTCATTTTGAAGAAAGAGGATGAATTGGGGGATAGATCTATAATGTTT
ACTGTTCAAAACGAAGACTAGCTATTAATAATTTATGCGGGGCGAGTGGCTCACGCCTG
TAATCCCAGCCCTTTGGGAGGCTGAGGCGGGCAGATCACCAGAGGTCAGGTGTTCAAGAC
CAGCCTGACCAACATGGTGAAACCTCATCTCTACCAAAAAAAAAAAAAAAAAANGTACC
TGCCCC

Sequence 2798

CCGCGGTGGCGGCCGAGGTACTGAGCCCTTCATTCCCCAACTCAGACTCTTAGCTCTTT
TGCAACTCTGGGCAAAGGTCAGCATTTGAATCGAGCGGCCCGCGGCAGGTACATTTTC

TABLE 1

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TCTCATCCACTTCCGATTCTCTTCATTGGCTGCAATATCTTTTTCTTCAAATCCTATTTT
GTTGGCTTCTAGGAAACCAAGCACATCTTGTTGTTTCTTCTTAATCGCTGTAGAGCCAGA
GGAAGATGCAATATATACACCGGATCACCATCCTGGGAACAGCGGCTGCGGTTGTTTGGG
TCCTGAAAAGGGCTGTGGAGCAGCTGCAGCAATGGCTGGAATCCAGCTAGGGGGCTGAAAC
AACGGTTGGCAGAGAAGGGTGGGGGAAGTGGGAAAAAGGAAGAACTCGCCAGAAGCCCCG
CCTTCGNCTTTAGCAAGCTTCCACCGAGCTCTTCTAAGCGCTTGAGTTNCAGCCAAAAAC
CCCCCCCCG

Sequence 2799

AGGTACTAACCTCTTACCTTCCAAGGTGGTAGAACATGCTTGAAAAGATAGTAAGTGAAA
AGGGGTAGCCAGTGCTTTACTCACAAGACTGCTTGAACATGAGACTCAAGGAGGGACCTC
AGCAGGCCTGGGGTGTTCAGCAACTATTCTTGCCGGGGCATCTTGCAAAGGAGTTGCTG
TGACAGTAAGCTCTTCCACTTTGAGACCGTCACCTCAGCCACGGCTCCACCTGGGGCTCA
GGAATGGTCAGGCAACACGTGGGGCCAGGATGGCGGTGGATGACTAAACTGCCGAAGAC
CGCGCCGCTGCGACTACCGAAGTACCTGCCCC

Sequence 2800

CCGCGGTGGCGGCCGCCGGGCAGGTACAAGTATGCAAGTTTTCTGTAAACAGATTACTT
TCAAACAGTTGGGAGCCCCAGGGAGATAATAGAAGGTATCCTACTCAACAGCAGTATATA
GAATGCTGTAGAAGAGGAATATTGTAAGAACAAAGAACTATCTCTTGAAAATAAAATAT
GATAACTGAAATATAAATTTAAATAGGATTGGAAGCTAAAGCTAGGAAATTACCCTAGAA
TGTTTTTTGAGAAATGGAAAATACCGAAGACCAAAAAAATAAAATAAACTATGCTGTGA
AAGAGAAAGATTAGCATTTGAGAAGGCGGGAAGTTGGTCCTGCTCAGATGCCGGTTTTCA
GATGCCTTATTCTAAAAAATAGNGATAGAAAACAAATTTCTACAAAGCAAAATTACAATA
AATTTA

Sequence 2801

CTACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGACGGGTGCCTGTAG
TCCCAGCTACTTGGGAGGCTGAGGCAGGAGAACTTGTGTAACCCGGAGGTGAAAGTTGC
AGGGAGCCGAGGTTGTGCCACTGCACTCCAGCCTGGGAGACAGAGCAAGACTCTGTCTCC
AAAACAAACAAACAAACAAAAAACCTGTAGCTTGGGATCAGCCTTCTCTTCTGTTGTT
TTTCTTTAAAAAATAAAATTAATAATAGGCTTCAAGTGATCCTCCCGCCATGACCTCCA
AAACTGCTGGGATTGTAGGTGTGAGCACTGCACCCAGCCGTATGTTTTTTTCTACATAAA
AAACAGCACAGGATTATCTTCAAAGCTAACAAATATGTTCAAATAACCACAACCCCAAN
TNNAAAAAATAAATNAAGTACCTGCCCCGGGGCGGCCCTCTAAAACTAANTGGGATCC
CCCGGGGC

Sequence 2802

NNANGNCCNNGAGNGAGGGGAAAANGCGCGCCGGGCGNAANCAAGGACAGAGCNGNNNC
CCGGGGGAAAAGGANANNCNCNACAANACCACACAACANACGAGCCGGGAGCANAAAGN
GGAAAGCCNNGGGGGGCCNAANGAGGGAAGCCAACCCCAAAAAANGCGGGGCGCNCACN
GCCGCGNCCAGGCGGGAACCCGGCGGGCCAGCNGCAANAAAGAAAAnnnnnnnnnnn
nnnnnnnnnnnnGNNNGCGAAAAGGGCGCNCNCCGCANCCCCGGACACCNAACGCNG
NGCNCGGNCGGNCGGNNGNGGNGAGCGGGAANAGCNCACCCNAAGGCGGGGAA

Sequence 2803

NCCACCGCGGTGGCGGCCGTNCGGGCAGGTACTCCTTTCAGAGGGTCATCTCCTCCACAA
GTATTTTTTGTCTTTGGCTGGTCTGGGTCCAATGCTGTTGCCATCCCAGCTTCAGAC
TGTTCTCCTGTTTGGAGAATTTCTTTGGACTGTATCTTCAGAGACACTCCTGGTCAA
GGGGCCTCAGAGGACCCAAACGCTCTGAAACAGCGTCTTAGCTCATCGCCGAGTGTGAGC
TCTAGCTCTTCGGAGCGCTTTCTTCTCCCCCGCGTACCT

Sequence 2804

CCGCGGTGGCGGCCGAGGTACAGAGAAAATATTTTTTAAAAATCTCATCAGGCTAGGTGA
GGTGGCTCGTGTCTGTAATCCCAGCACTTTGGGAGGCCACGCTGGGTAGGTTGCTTGAGT
CCAGGAGTTCAAGACCAGCCTGGCCAACATGGCAAAACACCGTCTCTACAAAAATAATAC
AAAAATTAGTGAGGCATGGTGGCACACACTTGTAGTCTCAGCTATATTACTTGAGAGGCT

TABLE 1

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GAGGTGAGAGGATCACCGTAAGCATGGGAGGCAGAAGTTGCAGTGAGCCTAGAATGCGCC
ACTGCACTCCAGCCTGGGCGATAGAGCAAGACTGTNTCAAAAAAAAAANATTTGGGGAAT
AAAGGAAAGTTCCTGCCCCGGGGCGGGCCCGNTTNTAGAACTTAGNNGGATCCCCCCCCG
GGGCCTTGCAAGGAATTTNCGATATCNAAGCTTANTTCGANTCCCGTCCACCCTNGAAG
GGGGGGGGCCCCGGNTACCCCAAATTT

Sequence 2805

TAGGGCGATTTGGAGCTNCCCCCGGTGGCGGGCCCGGGCATGGTACTTTTTTTTTTTT
TTTTTTTTTGGCAGCTTTTCTAAGCAAATAGATTGTCTGAATTAGTCACAGAATAATTT
TGTGAAAATTCATGTTTAAGTAGCACTACCCTTTCTTTTTTATATATTTTAAAGGNAT
TAGTTTATCTTCTTAAGTGGNGCAGTCACCTAATGTTTTTATTAACTCTTCGACCTGGA
GAGNGAAATACTGATATTTCTAGAAAAAATTCTACTCCTCTGATTATTTGAAATGCTGA
GGAAAATGTCCCTCCCATAGTAAACTTGTAAATAAGGAACTATATCATATTCAGTAGCT
GNGTTCTGTTCCATCTTTT

Sequence 2806

CCGGGCAGGTACATTCTCTGTTCACTTAGTCTTAAGGATATGTGTTTATCCATTCT
GTCGCTGGCTCAGAGTTTGCTTCACTCTCTAGACCAGAGTATAATTTTATTTGGCAGTCT
CCTATACAAATATGCATTTAAGTTTTTGGACACGTACGCGGGGGACTCAACAGAAATGGG
TTCCAGAAGAATAATGAAAAGTTGTGGGTAGGAAAATGAATCATTTGGACTCTTCAATG
AATGGAGTGAGCCAGGAGAGCTCAGCCAACAGAGGCACTCTGGGAACCTGTAGTAAA
GCCAGGCTGGCCAAATGCCATTTGATTTGAACCTCGTAGGTCCCCACTCACCTCTGCC
AGGAGCT

Sequence 2807

AGCCTCACCCGCGGTGGCGGCCGAGGTACCCCGGGTGTTCCTTTTTGTTCAAAGTCTATT
TTTATTCCTTGATATTTTTCTTTTTTTTTTTTGTGGATGGGGACTTGTAATTTTTCTA
AGGTGCTATTTAAACATGGGAGGGAGAGCGTGTGCGGGCTCCAGCCCCAGCCCCGCTGCT
CACTTTTCCCACCCCTCTNCTCCACCTGCCTCTTGGCTTCTCAGGNCCTCTGNCTCTTC
CCGACCTTCTCTTCTTCTGAAAACCCCTTCTNCCACAGCTTGACAGCCCCATCCTCCCC
GGGCTTCCCTNCCTAAGTCTGGTCTGGCGGTCTCTNGTCCCCCGGGNTTTCNAGAGGA
CAACTTNCCCCAAAGGCCCAAAGCAGTTTTTTCCCCCCTAGGGGGGGGGGA

Sequence 2808

CCGCGGTGGCGGCCGCTCGGGCAGGGTACATGCCACCACGCCTGGCTTATTATTATTGTT
TTGTTTTGGAGACAAGAGTCTCGTTCTGTGCCCAGGCTGGAGTGCAAGTGGCACAATCTC
AGCTCACTGCAGCCTCCGCCTCCTGGATTCAAGCAATTCTCCTGCCAGAGCAGCTGGGAT
TACGGGCACGTGCCACCATGCCCGGCTAATTTTTGTATTTTATAGATAGATAGGGTTTCA
CCATGTTGGCCAGCCTGGTCTCGAACTCCTGACCTCAAGTGATCTGCCACCTCGGCCTCC
CAAAGTGCCCCGAGGTTACAGGCATGAGCCACTGCACCCGGCCTATTATTATTAAGTATG
GTTTGCTAAGTGCTTTATAGATACGGACTTGCTTAAATCTTATAATAAGTCTGAAAGAT
GGGGTGATAACCTCATTTAAGAAAT

Sequence 2809

AGGTACTGTAAATATTACCATTATTTAAAATGTTGACATTTCTGCATTAAGTAGAACTT
TCTAAATGCCTAAATACCACTCAAACATGACTTAAAGAAATTGAATGACTCACCCTAT
GACCTTCAAGAGTCTGATTCATAGAAAGTTACTGGGGGCTGCAAGGCCCTCAATTTTG
CATCATCTGTCTCGTCTCTAATTTCAAACTTTTCAATCCATCTTCAACACCGCATG
CTATGAACCTTGTTCCTTGTTCAGGATACACACTGCAGCTTACGTTATTGGGAATGG
AAATTTTCTTGCTCAGGTAGAAGAACATCGTGGGATCCCCGAGAGGGTCACGGCGGCCGC
T

Sequence 2810

AGGTACGCGGGGGGCTCTGAGAGGAGTCTACCTTGCTTCTTATGGGAAGGGAGACCCTA
AAAACTTTCTCCTCTTTGTCTCTTTTCTCCCCACTCTGAGGTTCCCAAGAGAA
CCAGATTGGCAGGGAGAAAGCATTGCGGGGCAATTGTTCTCCTTGACAATGTAGCAATAA
ATAGATGCTGCCAAGGGCAGAAAAATGGGGAGGTTAGCTCAGAGCAGAGTAGTCTCTAGAG

TABLE 1

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AAAGGAAGAATCCTCAACGGCACCCCTGGGGTGCTAGCTCCTTTTTAGAATGTCAGCAGAG
CTGAGATTAATATCTGGGCTTTTCTGAACATTCTGGTTATTGAGCCCTTCCTGTTAGA
CCTACC

Sequence 2811

GGCAGGTACTTTTTTTTTTTTTTTTTTGAACATTGCCCTTTGATGTCCCCATGAGG
GCCAGGCCAGGCAGAACCCATCCCATTATCCTTAAACTCANAAGGAAATTTGTCTAA
ATATTAAAGGATTAATATGGGAATAAAAAATGAACCTTAAACCCTGCCACTGATACACAA
GCTGTCTNTCTTAGAGTTCAATGAACACTTCAGGAGAGTATTTCCAACAATATTTAGATA
TTGGAATATCTAAATATTGTTGATTAGATAACCAACCCTAGATTTCTCACCACCCTAGAA
CATTTAGTGGGGAGACATTTCTTTCTCCTTTTTCTGATAACTGGTCAGAAGTGATTGAC
TGTGCAAATGGTATTT

Sequence 2812

NNCGGCGGCCGGGCGGGNACGCGGGNGAGCNNTACGAGGGNCAGGAANCCCAGANGCCGC
NCGACCTGGAGNCAGCCTACAACGCNTTCAACCGCTGCCGGCANGCCCGAGCCCGGGGCA
CTAGCCCNNGCACAGAAGGGCAGAGNCNGAGGCGANGGCNCCNGNCCCNNGNCCGCCAC
ACAGGCCTTTGGTNTTNTCACACAACNCACGGGGCGGCAGCCGCCNGAAAGNAGACNGNC
CCCGGGGGCAGAACANNGGGGGCGGGCCCCNCCCCACAANAAAGANGCNCNCCGACAAA
AAAAAAAAAAAAAAAAAGNACCNGCGCCGNCNAGAACNAGGGGANCCC

Sequence 2813

CGGTACCCAAGCTTTTGGTTCCTTTAAGTGAGGGNTNAATTGNCGNCGNCTTTGGCCGTA
ATTCAATGGGTCAATAGCTTGGTTTCCTGTGGTGNAATTGGTAATCCCGCTTCAACAAA
TTCCACNCAACATACGNAGCCCG

Sequence 2814

CCGGGCAGGTACGTTCTTTTNGCTTTTCCTTTTNGTAAGATGGTCTTCAGAGCTNCTTAA
ACACATTTAGAAAAAGTTAAACCCCAAGACNCTTTGGGGATAGGTAAATTTAAGANGC
CCAACCTTGGACTNGGATTAAAGGAANTACCTTAAAAANCCNGGNAACAATTATTT
TTGGG

Sequence 2815

GGCGGCGGCCGAGGTACAGAGAAGCCATCANTTTAGAGGGCAGCANAAAACCAGAAGCCN
GNTTTGATCCCTNAACACCAAGANGCCTNTAACACANGNCACCAGCACCCCCAGGAAGG
CCAAGGAGTCCCACAGAAAAACCTAGGGNNAGACCAA

Sequence 2816

GCGGCGGCCGAGGNACAAGNAANCNCCTTTTTTGGGGGGGGGAAAAACCCCCCNCCCCN
NNNNCNACCCAGANGAGGAGGGTTTCNGCCCCCAGGGGAACANCNCNAAAANCAGCNCG
GCCNNNGNCGGGACCAGNGCCAGGNGGACAGCCAGNGNCCNGGCCAGANGAAAGGCNGCC
GTTTTTTTTTNTTNGGGGGGGNCGGGGGGGGGCCCCCCCCAAAAAANCAGCCACCACC
AGGNGGGGNGGGGAGGA

Sequence 2817

AGGTACCCTGAGGTGCTCCGCTGGGGACTCTGCTCATTCTGGGGGTGCAGTTGACGGCTG
GTCGTGATCTTTCCCCGTAATCTGTCCCCTCTACGGAACCTAGTCTCCCGTTCTGGCCA
TGGCCTTCTTCTTGGACTGCTTAGGANNCCAGAAAGAAGTATTGTTATCAAATTTCTT
AAAGCCTTAGGAAGAAAGTCNAGGGAGTGGGAAAACCAGGCTTCTGANAAAGAATACCTG
NTTGGCCACCTGNATCTTCCNAGGNCANCCACGGAANTCCCGGGGCCCTTCCAATCAGG
NAAGGTCGGNAATCTCTGATGGTCNATCGGTTCTNATGGCCAACCTGGCCAACCAGTTTGA
AAAAAA

Sequence 2818

CCGGGCAGGTACTGTTCTGTTGGCCGAGTGGAGACTGGTGTTCTCAAACCCGGTATGGT
GGTCACCTTTGCTCCAAGTCAACGTTACAACGGAAGTAAATCTGTGAAATGCCACCCA
TTGAAAGCTTTTGAAGTGAAGCTTCTTTCTTGGGGACCAATGGTGGGCT

Sequence 2819

AGGTACTTTTTTTTTTTTTTTTTTGGGTTAGGATGGTTCTAACCTGATGGGTTGTGT

TABLE 1

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TTACAGTGGGGTTTCCCCCAAAGGTTATCTTCCTGCTTCTCTGTAAATAGGGCAGTTG
CTGCAACAGATTAAATACACTCGGGCCACCTGTGGGTAGTGGGTCAAGAATTTTGGACA
GAAAGGCTATAGGCTGCCGGTGGCCCCCGTGTGTTTGGGTGAGCACCCTAGAGCTATCC
CTTTATTCACATTGACGAAGAGGTGGAATGGCTGTTCTAGGGAAGGTAGAAGTAAAGGCAG
TTATGAGCAGGTGTTTTAATTCCTCTACTTGTTGGACCTCCCGTGGT

Sequence 2820

AGCTTATCGATACCCGTGACCTTCGAGGGGGGGCCCCGGTACCCAGCTTTTTGGTCCCT
TTAANTGNGGGNTAAATTGGCGCCGCTTTGGCGNAANTCANTGGNCANTAGCTTGTTN
CNTGGTGGTGNAANTTGGTAATCCCGNCTTCNACANTTCCACACANANNACGAAGNCCGG
GGAANCNTAAAGTGGNAAANCCTGG

Sequence 2821

CGGCCGCCCGGGCAGGTACCATCTCTTGGGAAAACCATGCTACCTCTTCTCTCTGTTCTC
TATTTTGCCACTAGAGAAATAGAAAATAAGGCTGGGAGCAGTGGCTTATACCTGTAATCC
CAGCACTTTGGGAGGCTGAGGCGGGAAGAATCACCTGAGGTCAAGAGTTTNAAGACCAGC
CTTGACTAACANTGGTNGAAAACCCNCGTNTTTTTNTTTAAAAAATACC

Sequence 2822

CCGCGGTGGCGGCCGAGGTACTCCAATCCGGGTGACAGAGGGAAGACTCTGTCTTAAAAA
GAAAAAAAATCAATAGAAATCGGTTTTTATTTATTTATAGTATGTGCTTTGAGTGGTTC
TCAATCAAATTGATTTTTCCCCCTTCCAGGGGATATTTGAAATATCTGGAGGCATTTTTG
TTTGCCCCATCTTTGGGTATCATATTGGCATCTAGTAGGTAGAGGCCAGGGTTGTTGCTA
AGCACCTATAATCCACAGGACAGCACCCAAAAACAGTTACCCAGCCCAAAATGTCAGTA
TTGTCAAGGTTGAGAAGCCTTAATTTAGATGTAATGTTAAGAGTTTCAAGTAATTTGGCCAG
GCACGGTGGCTCACGCCTGTAATCTCCTAGCACTTTGGGAGGCAAAGGCAGGCAGATTGC
CTGAGCTCANGAGTTCGAGATCACCCCGGGCAACAAGGTGAAACGCTCTGTCTACTAAAA
TACAAATCC

Sequence 2823

CCGCGGTGGCGGCCGCCCGGGCNGTACTCCTCTTGCTACCACCTTTGTTGCAGAAGATG
AAGGGGAGAGGGAGCTTCTCCCTATGGCCTCATGGCTTCTTGAGACAGATCAGTCCAG
CCAGATACAGAGCAAAGCAGCTTTGCATCACCGCGGGCCAGTTGCTGATGCCAGCTTTA
TGTCTAAAAAAGTGAAGCCTCAAGGGGGATGGAGGATAGCAAGAAGAATGGGTG
CCTTGGCCCCAGAGGCATTGTAGGGAGAGGAAGACAATGTATCTCATCAGGGTTCTCAAC
ATTATGAGATTATCACACATCACTATCTTTGGAGGGGCTGAGTGATTGAGTTATGGCTC
TGACTCCTCTCTGGGGTGGAGAGTGAAAGATGACAAANAAGGCCATCTGTCCCCTAGGA
GACACAGTTTGCAGTATAAGACAGGACANAAGAGAACAGAAAAACAAATNCAACTGGAAA
AAAGGGGTGG

Sequence 2824

AGGTACCTTAGAGCAACATGCAAAGCTTCCCTNCTCAGCAATCCCAGGTTGGGGCCCCCT
GTCTTCCTATCGTCCTACCGTCACAACCACCACTGCAGGCTTCTGATGCTCTGTTTTCC
TCCTCTGTCTCAGTTCAGTTGCTCTGAGTTAGAGAGGAGCTCTCTGGGACTGGAGCAAAT
GACTGCACCGGCCCTCATGGGACTTCCATTTAGTGGATTGAGGGGAAAGCAGCACGTGT
TTTTGAGAGACCTTGGCAACGCAGGCGACCTTGACGTGACCAAAANAAGAGAGATTTGG
AATGNTTGTTTACAGCCTCCGGTCAAAAAAAA

Sequence 2825

TTAGGGCGTTTGGAGCTCCCCGCGGTGGCGGCCGCCNGTCAGGTACCANNNCTTAGCAN
GGAANNTGGACAACANAAGCTNTAAATCCTCTTGATCGNCACGNTNAAATTTGCACTGAC
CAATCTGTTGGCACAGTAACTGGTTATAAGCTAAATTTCTACATTTTGGCTACAAGTATN
CCAAATNCACCTTTTAAAAATCCTATGTNAGATGCCATCTGGTGTTAATGATTGCACA
CCCCTTAAATTGAAANTATTNCAAATAAATCTNACGGATTTATATANNATNATTAATGNN
TNTATTTTAAAAAGACAATCTGANAATAACACTTCCCCTAATTGTTGTCTTAATAATGAC
CAAGAGCTGNNGAAAAATNATTCACACTGNTACGTCGTTNTGTTGGTTTGCTCACGGGGG
AAGGGGGGTTG

TABLE 1
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Sequence 2826

GCGAATTTGGAGCNAAACCNCGGNGGCGGCCGAGGTACTTCGGGGAGAGNNTNTCCTNCC
NTCATTTTGAACNCCAGCGGCCCTCTTCCCCTTCCNNGGGGCTGCTTGCCCTGGGAACNCTG
GCACCTTGGGCTGNGGAAGGCTCTGGAAAGTCCTTCAAAGCTGGAGTCTGTCCTCCTAAG
AAATCTGCCCAGTGCCTTAGANACAAGAAACCTGAGTGCCANAGTGA CTGGCAGGGGCCA
AGGGAAAAAAGTTGCCCTNANCCNTNGGGGAAAAAAGNGCCCNCGGAAACCC
NGGGGGGNCCCCC

Sequence 2827

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCGGAACACTTGAGGTCATGAGTCTGA
GACCAGCCTGGCCAATACGGAAGCCCCGTCTCTAACAAAAATACAAAAATACAAAAAT
TGGGTGTGGTGGTGTGCACCTGTAGTCCCAGCTACTCAGAAGGCTGAAGTAGGAGAATCG
CTTGAACCTGGGAGGCAGAGATTGCACCACTGCACTCCAGCCTGGGTGACAGAGAGACAC
TCCATCTCAAAAAAAGAAAAGAAAAGAAAAAAGAAAAGAAAAGAAATGTTGAGGCAAT
GAATATACAAACACATTTTAGATTAGCATTTGAATTAGTAACTGCATAAAAAAGATCCA
ACATGAGCTGACATCATCCAATCCATTGAGGGCCCAAATAGAGCAAAAAGGCAGAGGAAG
AGCAATTC

Sequence 2828

CCGCGGTGGCGGCCGAGGTACAGAAAGAAGAGTATCCATTTCAACTACTAGGTAACTGC
CTTTGATGAGCTTGATTTTACCTGGGTCACTAATTCACAGAACCAATGTAGGTGTCTGG
GCGGAGCAAAATATGCTCCAATTGTGTTTTCTTTGATAGATTCTTTCAACAGACAGTCT
TTTTTAGCATCTTCATTTTTCTTTATTTTGTGACTTGCATATTTTCATTTACAGGCTG
CAATGGTGACACTTCCATGGTGACGGTCGTGAAGGGGCTCAAGAACCCTGAAAGCGACTA
AACAGGCAGACCCACGAGACCACCCCGACCAAGCCGNTTCTCCACAGACGCGCGTCC
CCCGCGTACCCGCCCG

Sequence 2829

CCGCGGTGGCGGCCGAGGTACTTTAANTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
ANNGGGGGGNGGNNNNNGNNNAAAANNANNNNGGNNNNNGGGGNNAAANCCCCCNCCNNNNNG
GGNAANCCCCNNNNNAANNNNNNNNTTTTNNNGGNNNNNNCCCNNTNTNAAANAANCGGGG
TNAAAAAAAAAAAAAATTTTNGGGGNNATTTTTTNNNGNNNNCCCCCTNANCNNGGGGGG
GNNTNTTNTCTNTTTTANACCCCGGGGGGG

Sequence 2830

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTGTTTTGT
TTTGGTTTTTTTTTTTGGCTTGACTCAGGATTTAAAACTGGAACGGTGAAGGTGACAG
CAGTCGGTTGGAGCGAGCATCCCCAAAGTTCACAATGTGGCCGAGGACTTTGATTGCAC
ATTGTTGTTTTTTAATAGTCATTCAAATATGAGATGCATTGTTACAGGAAGTCCCTTG
CCATCCTAAAAGCCACCCCACTTNTNTAAGGAGAATGGCCCATTCNTTCCAAGTTNC
CNNANGGGGANAAAAANANCNNTTNTTTTNGGNAATTTTTTAAANCAAAATTTTTTAAN
CCCCCCCCAAAAACCTTTTTNTTTTNGNNAANAAAAAANAAAAAATTTTCCCCC
CCNCTTTTTTTTTTTTTTACNCCAAAAA

Sequence 2831

CCGCGGTGGCGGCCGATGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTAACTTTGACTNTTTTTTAANGCCNCGGNGGATNTC
NTTGCCCANCTCCCANNAATGTTGCCCTTNTAANTCTGTTCCACTTTTAGNGGNAGCC
ACCAGGCCTTANCCATCCCGGGTACCTNGGCCGTTTTTAAANAGGGGNATCCCCCGGGN
TNNANGAATTTNAAANTNAAAGCTTNNNGAAACCNNCCCNCTNNGNGGGGGGGGGCC
CGGCCNNAAATTTTTNTTTNTTNAANANGGGNAAAAAANGNCCCCCTTGGGGNNA
AAAAAANGNAAAAAANTTTTTTTTTNTNGGNAAAAAAATTTTTTTCCNAAAAAAT
NNCAAAAAAANAAANGGGNGGGAAAAA

Sequence 2832

TABLE 1

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CCGGGCAGGTACAAAGATTCTCACTGCGTGCTAAGAAAACAGATCCAGGCCGGGCACGG
GGGCTCACACCTATNANCCAGCACTTTGGAAGGCTGAGGCGGGTGAATCACCTGAGATC
AGGAGTGCGAGACCAGCCTGGCCAACATGGCAAACCCTGTCTCTACTAAAAACACAAA
ATTTGCCGGGCATGGTGGCAGATGCCTGTAATCCCAGCTACTTGAGAGGCCAAGGCAAGG
AGAAANTTGCTTTGAACCTGGGGAAGGCCGAANGNTTGAANTGAGCTTGAAGATTCGGC
AACNAACCTGCACTTTCCAANNCCNTNGGGNTGACNAGGANGATAAGGACCTTCCNTTCT
NCAAAAAAAAAAAAAAAAAAGGGANAAAAAAAAAAAAAAAAAGGGNTCCCTTTTNGGCCCGTTT
TTTANAACTTAAGTGGAATTCCCCCNGGNCCTTGNGNGGGAATTCGNNTNTNNAA
AGCTTTTTTCGAATTCCCCGCCCANCCNTNNGNGGGGGGGG

Sequence 2833

CTAATTGGAGCTCCCCGCGGTGGCGGCCGGGCAAGGTAATTTCTTTTTTTTTTTTTT
AGATGAAGTTTGTCTTGTGCCCAGGATGGAGTGCAATGGTGCAATCTCAGCTCACTG
CAACCTCCGCCTCCTGGGTTCAAGTGATTCTCCTGCCTCATCCTCCTAGTAGCTGGGAT
TACAGGTGCCACCACACACCCAGCTAATTTTTGTATTTTAAGTAGAGAATGGGGTTC
ACCATGTTNGGCCAGGCTGGTTTNAACCTCTGACCTTAAGGNGAANCCCCCTTGCCTT
NGGCCNCCAAAAAGGGNTNGGNAATNANNAGGGGGGNNACNCNCCCCCTTNNNCNNANAA
AAAGGGGGNTTTTTTTTTNTNTGGGGGGGGGAAANATTTTNNAGGGGGGGNGCCCCC
NNCCCTNANAAAAAAAAANANCCCCCCCCCGNGGGGANNAANNNNTTNTATAAA
ANANTTTTTCCCCCCCCCCCCNGGGGGGGGGGGCCCCCCCCCANCTTTTTTTTTTTTTN
TAGNAAGNGNNNCAANCCCCCNAAAA

Sequence 2834

GGGGNAAACCCCGNGGCGGCCGCCCGGTTTGGAACNGGGTNAAACCCCGGNTTTNA
ACCNCANAACCGCAAGANAACGGGNGNAAAAAAGGGAAACANANCAGCNGTCCAAAGAA
ACAAAAANGNGGGCAAACC

Sequence 2835

GGTGGCGGCCGAGGTAATGATCATGGAACCTCGGGGAGGAAATGATGTTTTCTTCTAC
CCATCTTATGTTCAATTGGCTGGGGCTCCTGGAACAGAAGACAGATTTACAAAAGAGAAAG
GCACACAAATTTATGTAATATAAGTTTTACATGACATGGGAGCCTTTATAAGGAAATGAC
CCAAGGAAATGGTTAAACCTGAGTGGTTTTGNGTTAGGTTTGATGAGCAATGAAAAGCTA
TGGAGAACTATGATAGGAGGAGTGTGAGCTAAACGCAATGAACTGGGGGAACT

Sequence 2836

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAATTTTTTTTTTTTTT
TTTTTTTTCTCAAACGGCCTTCTTAGTCCTGTAACCTGGAATGCACATAGTCCTGT
AATGGCCATCCCAGAAGTGAATCTACATGATTATTCAAATCAAATACCTAANAAAAAA
ATCACTTGAAGTTNTGCAACTTCCCAATGCAATTCCTGANAAAGAACTTGACTGAGC
CAGTTCAACTTTCTGTATTGGATTANAAATCCTATCTTGCTGGCTGGTCTGTANATTGGG
TTGCTCTTGAGTCAAAATGANCTTTTTTTAAAGTTAAGCCNCTTTTGGCCNTTNGGGG
GGGGCCCNCTNNGGGGGGGNNAAAAAATAATTTNNCCCGGGGTTTTNTTTTTTNCCC
CCNAAAAANCTNTTTTTTTTNAANCCCCCNNAAAAAANNGGNCCCCCCCCCCTNG
NNGGGGGGGGGGGGGGTNTTTTTNTCCNCCCCCCCCCNCAAAAA

Sequence 2837

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTGGGTTTTAGTAGAGACAGGGTTTC
ACCATGTTGGTCAGGCTGGTCTTGACCTCCTGACCTCATGATCCACCGGCTTCGGCCTCC
TGAAGTGCTAGGATTACAGGTGTGAGCCACTGCGCCAGCCCTGAGAAATAGTTCTTCTA
ATTGTCATCCAGTTTTCATCTGAGTCCTGTTGTTCTTTGGATATGTCCCTTCCAGAGCA
CAGCAGGGGTTGTTCAAGTCTTCANAAAAGCAGCTCTGTTTCTCCTCATGTGGTGGGA
GTGGAGTCAGAGCGTGGCTCAGGCCCCACATTCTCAGCTGTTTGGATCTGGGGACTCGAA
GTTTCTGGTGGTTACTTCTGAAAGTCTTTTCCAGGATAATTATTCTTGCTCGGTTTCTCT
GCATCTCTGACAGGCTGGTTNCCTGCTTCCCCGCTT

Sequence 2838

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAATTTTTTTTTTTTTT

TABLE 1

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TTCTTTTTTCTCTGTGGAAAAAGAAAGAATTTGACTTTATTTAGAAAGTCTACAAAATA
CAGAAGACGATAACTCGCTTGCTGTAAGTCAGGAAATAAATAAATTCTAGGAGCCGGGCA
ATATTTTTTAACTTTTTTTTTGAGACAGGAGTTTGCTATGTTGCCAGGCTGGAGTGCAGT
GGTGCGATCTCAGCTCACTACAACCTCTGCCTTCTGGGCTTAAGTGATCCTCCTGCCTCA
GCCTCCCAAGTAGCTGGGACTACAGGCATGAGCCACCATGCATGGCTAATTTTTGTATT
TTTGTAGAGACGGGGTTTCACCATGTTGTCCAGGCTGGTCTCAA

Sequence 2839

AGGTACTTTTTTCTTTTTTTTTTTTTTTTGGAGACAGGGTGTTTATCTGTCAACCAGG
CTAGAGTGCAGTGGCGGGATTACTGCTCACTGCAACCTCGACCTCCTGGGCTCAAGTGAT
CCTCCAGCTCAGCCTTCAAGAGTAGCTGGGACTGCAGACCTGCACCACCACGTCCAGCT
GCCCGGTTAATTTTTTCTGTGGTTTGAAGAGGGGAGAAGGTCTCACTATGTTGCCAG
GCTTGTCTCAAACCTCCGGGCTCAAGCAATCCTCCACTGTTGGCGTCCCAAAGTGCTTG
GGGTTACAAGGTGTGAGCCACCACCACTGGGGCTCTGCTCTGCCTTCTGAGTTTGG
GTTTTCTGCTTATGGNGGGGAGCTTTGTTCCCGTTCTTCCCCACAAAGAACCAGGGAT
GTGGCACAAGCTTCCCTGCCGTTTTCTTTAACTTCAAGTTGGG

Sequence 2840

CCGGGCAGGTACAACCTGGAAACAGCCACCGGAGAGAGAACTGTCTCGCCTTCGCCGGCTT
TACCAGGGTCATCTCCAAGAAGAGAGTGGCCCCCACCTGAGTCAATGCCAAGATGCCC
CCTAGAACACCAGCGGAAGCCTCCTCCACTGGGCAGACAGGCCCTCAGAGTGCTCTGTAG
GAGCTGTAGACTGGGAAGAGAGGCCAGGCGTGGTGGCTCACTCCTGTAATCCCAGCACTT
TGGGAAAGCCAAGGTGGGCCTTGATCACTTGTANTCCCAAGGAAGTTTTGAGACCAGCC
TTNGGCACCATGGTGAAAACCTTTGTCTTTACCAAAAAATACAAAATTTAGCTGGGTGT
GGTGGTGCACACCTGTAGTCTTAACTATTGGGGGAGGCTAAGGTAGGGATTCACTTTGAT
TCCCAAGGAGGCGGAGGGTTTTGCANTTGAGTTTGGCANTTCAACACCCCTTGCAANTTNC
AGCCTTGGGGTGACAAGCTTAAAACCCTTTNTTTTCAAAAAAAAAA

Sequence 2841

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCATGTCAATGGAGTAAT
GCTCCCAGGAGAGTTATGGCTGCTCTGCTATGTCATGCAGGTTGTTAGGGAAGTAGGGGA
AAGCTAGAAGTTACAGGCCTTACCCAGCTCCCATGCAACCCAAAAGGCCAGTCTCACTCC
CACCGTGCCCCACCCTGACAGCACCAAGTTTGTTCAGGCAGTGAGTGAGCAGGGCTGA
GAACTTGTCCCAGGCTACCAGCCTGCCAGCTGAGAAAGAAAGCATGGCTTTTGCATCTTT
TTGCCTGTTGAGTCTGCGCACTGGATTTATGCCCTCCCTCGAGTTTGGCCGGGAGATTG
ACGTTTTGGTTCAAGTGGTTACCAAAGTTTACTTGGGGAGGTTTCCTTTCTTTGGGTC
TT

Sequence 2842

CNAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGGTACTTTTTTTTTTTTTTTT
TTTTGTATTTTAGTAGAGACAGGGTTTCATCATGTTGGCCAGGCTGGTCTCGAATTCCT
GACCTCAGGTGATCCGCCTGCCTTGACCTTCAAAGTGCTGAAATTACAGGCATGAGCCA
CGATGCCCAGCCTGAGGAACAGATTTCTATATGGCAAATAATAAAGGCCAAATAAAATTA
ATGCTAAAATAGAATGAGGAAAGTATTNTTTNTTCAACCAGAATGGTTGTNANCANAAAT
GNTTTGCACCGGGTGGNNTTNAAAAAACCCNCNCTTNNATTTTGGGTTNTNCCTGGG
GGGNTNTNGGNNCATNAAANACCNTTTTANNNTNTTTTTTNNNNNAAAAAAANTTTT

Sequence 2843

AGGTACTTTAACTTCTTTTTTTTTTTTTTGGAGATGAGTTTTGCTCTTGTTGCCAGACT
GGAGTGCAATGGCGCAATCTCGGCTCACAAACCTCTGCCACCCGGGTTCAAGCGATTG
TCCTGCCTCGGCCTCCTGAGTAGCTGGGATTACAGGCATGCATCACTATGCCAGCTAAG
TTTGTATTTTAGTAGAGACGGGGTTTCTCCATGTTGGTCAGGTTGGTNTCGAACTCCCG
ACCTCAGGCGATCTGCCCGCTCGGCCTCCCAAAGNGCTGGGATTACAAGTATGAGCCAC
CGCACCAGCCTAAGATCCAAGATTCTTATGTTTTCTCTCCTTGCTTTTGAACCTGCC
CGGGGCGTGAGCGGCCCGCGGGCCAGGTACCAACNAGAAACNCAAACACCTTGNCAGT
NTNTCNAGGCACCNTTTCAAAAACCAAATTTTGANAAGGTGAAACNTTAACTTNATA

TABLE 1
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TNGGCTTAAATTTTAA

Sequence 2844

ACCGCGGTGGCGGCCGAGGTACTTTTTNTNTTTATTTTTTTATTATTTTTNTGGG
GACGGAGNGNCCCTCTTGNTGCCAGGCTGGAGCGCNATGGCGTGATCTTGGCTCACTGC
AGCCTTCGNCTNCCGGGTATCAAGTGATTCTCCTGCCTCAGCCTCCCNAGTAGCTGGGAT
TACAGGCATGCNTNNACCATGCCCAGCTAATTTGTATTTTTAGTANCAAAACCGGGG
TTTCACCCATATTGGGTGAGCCTGGTCTCGAACTCCAGACCTCAAGGGTGGATCCCGC
CCACCCTCGGCCTTTCNCNAAACCTGCTGGGGAATTACCAAGGCCGTTNAAGNCCAACCC
GNCGCCCTNGGCCANGGGGACCTNATACTTCTTTTTTAAAAAAAAGACATTTTGTN
GGGGGGCNTCACCACCCNTTATATTTNAAAAATTAGGTTNCCTTGCC

Sequence 2845

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTCTCATCTTCTTTGATAATGN
GNGAAGCCAAGGATAGGCAGGAACCCCAAGTTCNTNTNTCCTGGGATTGTCACAAAATT
CCCCCTNTCCCATCGCATCTATTTTTGTTTGTNTTTTTNTCCAAAGAGGGGAAA
ATACCATGGGCTTANAGGAATCATCGCTCACTGNGGGAACCTTGCCCCCTCCCAAGCC
ACCCCACTGNGCCATAAACGTGCTGCCTGTAACCAATTGTTCTGTTGAATAACAATGC
GAGCTGAGGGGCTTTTTNTGCCTGAGCTGCAAAATANATTAGGCTGCTCCCTTTTATGTN
GCAANACATTACCCAAAAGC

Sequence 2846

CCGCGGTGGCGGCCGCGCCGAGCAGGTACCTCAGAATGTAAGTGTATGTGGAGGTCTTTAA
AGCAATGATTAAGTTAAAATAAGGCTATTAGAGTGGGGCCCTAACTCTAAATGACTGGAT
TTATATGAAGGAGCTAGAAGAAGGACAGACACACCAGGGTCCTGTGTGCACAGAGGGACA
ACCATGTGAAGAGGCAGCAAGAGGCCAACTGCAAGCCGAAGAGAGAGGTCTCAGGGGAGA
CCAACCCCTGCCAGCACTTGATCTCAGGCTTCCAGCCCCAGACCAGTGATAAAATAAT
TTCTGCTGTTAAGCCACCCTGTCTGTGGCATTTTGTCTAGTGGCCCTAGCAA

Sequence 2847

CCNGGGGCGGCCGAGGTACCATNANGCTTGAGGGGCTGAAGCATGGTTTGTCCANAACC
CCAACCACCAGGTCTATCGNNCTCTTCTGNACCTTTTTNCTCTTTTTCTTCTNCCC
TTGCACCTGAGGNCCTGGAAGGCCTTGATGAGGCCAGCAAACAGGCATTCTCACAGCTG
GGTTTATAGTCTTTGGGCCCCCTACTCAGTATCCTGGGAACCCTGGGCCAGGAAGTTAAC
AGTGGTCAATCANAAANTNCTGAANAAAATCCCCCTCCCCCTG

Sequence 2848

CCCCCGNGCNGGNNCANNTTTTGGGCNNTTTTGGGTTTTTTCAGNANGGTTNGTGGAGNA
TCCCCNGNGGTTTTTNNNAAACCCCCCNNAACANAGACCAAANGGGGGGNNNGNAG
GGGGGNGGGGNCNNTNAGAGAGNGGGGGCGGGGGCAGCGGGGGGNAAGNNGGNNGNNA
GGGGANGGGGAGGGGNCNNCCCCANACNNGGAGGNGGAAGGGGAAAGAACGGCNAGGGG
NAAAGGCCGGGGGGCCACCNAGCNCNGGGGGNNCNACNGANGGGGGAAGGAACGGGGGA
ACCAAAGGCCCNCCCCACCCAANAANGGCCNNGGGAAGAAACCCACANNNGGGNAAGGA
NAAAGGGGCCNGANGGCGAAGGANGGCNCCCAAGCAGGAGGCGGGNNGGGGCCGAACNG
CCCCNAAAAAANGCCCCCGGGNNNACCCCAAGGGGGGANGGGGGNCAAAAAGNNGGGG
GGAAGGAACNGGGCCNAGGGNGGCCCCCNAGANGNNGNNNGGCGGAAANCCANGC
GCCNGGGGGGNNANCCAAGGGGGNGGGA

Sequence 2849

GAGATGCAGTCGATTNCATACCTANTGGGTCCCANTCCTNNNTNNGGNCNGTTGNGAAGC
CGGATAGTGACTGAGATCACTGGGTAGACCTTGTCCACCTTGGCATTCTTGTCTGCCAAG
GTCCATGGCCCATGGGGATGGGGACAATTTGAGTGGG

Sequence 2850

GGCAGGAACNTTCTTTNNTCTTTTTNTNAAAGTNAGNGGTAATTTAAAAATCTGAAAT
ATAGGCTGGGCGTGGNGGCTTACGCCTGNAATCCCAGCACTTTGGGAGGCTGAAAGTTGG
GGCNGGATTCTAGCTCGGGAGTTCAGGGACCAGCCTGACCAACATAGAGAAACCCC
GNCTCTACTAAAAATACAAAATTAGCCANGGCGTGGTGNGCACCATGCCTGTAATCCCA

TABLE 1
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GCTGTTTCAGGGAAGGCCCNANGCCANGANAAATTTGCNTGGAACCCCGGGGAGGGCCGG
GAANGTTTGTGGATGGAGCCCCGAAGATCANCCAATTTGNNNANCTNNCAAACCTTTTGG
GNTTGAACAAAGAAGCCNAAAAANTTCCCAATTCTTTCATNAAAATACAANGAAAACNT
TANANAAAAATTTTTTGAAAAATTAATGGGGACCCONTGGGAAANGAGGCCCNNTAAAAA
AAAAAAAAA

Sequence 2851

CNANCGGAAGGGGCCCCNNGGGGGGGGGGANAAGGGCAAACCCNNGNCTNAGCAACCAC
ANGGGGGGGCCGGAGCCNNGGGGGGCCAGGACCAGGGGAGAGGGAAGCCCCAGCCCNAG
GCGNNCGCACCACNCCNAGCACCAGCGCACCAANACNGCAGACGAGGAAGGAAGCACAAG
CNCCCCACNNNACAAAGGGGAAACCGAGGCGCGGGNAGCGCGGNCCCCGGGGACGGCCGCA
CAAGAACNAGGGGGACCCCCCGGGCGGCAGGAGNGCCGGNNAGAAGCCAAAACGAANCC
GGCGAACNNGGGAGGGGGGGG

Sequence 2852

AGGTACGCGGGGATGCGCAGTCGTGAGTCCTCTTGTCCTTGAGCGTCAACCTTCTTTCCC
TGAAGTGGCTGGGGTTCTCTGTTTCCTTCTTTGATTGACAACTTGTGTTAACCCTCGCACA
TCTCTGGGCCAATTTTTGCTTGAAAATGGCAGCTCCCGAGCAGCCGCTTGCATATCAAG
GGGATGCACGAGCTCCTCCTCGCTTCCCCGCTCGGGGCGACCGAACCTTCTGGTCAG
GCACCTGCCGGCTGAGCTTACTGCTGAGGAGAAAGAGGACTTGCCCGAAGTACCTGCCCG
GGCGGCCGCTCTAGAACTAG

Sequence 2853

CGGNGCGGCGCCCGGGGNATGGTACCCTCTGTACGGCTTCCTTTTNTGGAAGGGA
ATTTCCCAACCCCGGGTGAGGCAATGCCCCGCCCTGCTCCGTGGGCTGCACCTGCTGTCT
GTCAAGCCCCAATGAGATGAACCTGTACGCGGGGGCCTGGGATCTCAAATGGCGGCCC
CGTGCGGAAACAGCGTNTGGGAGCANNCATGTTGCCTNCTGAACAAAGCCGTTGAAGATG
AAGATGGGCAAAATCGCCCCATACGGAACAAGCGCANCCTNNGGAGCCCGATACCTGGC
NNGCGAACACCAACGGGAGAATTCGCCAATATGGATGTGACAGCGGTTCCCATTAAG
CGGTGATAGGGATTTTT

Sequence 2854

CCGGGCAGGTACGCGGGGTGGGCATTCTGGGTAACAGAGCTATTTACTTCCTGCGGGTGC
ACAGGCTGTGGTCTATCTCCCTGTTGTTCTTCCCATCGGACGAAGATGGCCCTGGAG
ACGGTGCCGAAGGACCTGCNNGCATCTGCGGGCCTGTTTGCTTGTTGCGGTGGTCAAG
ACTAGTACCACCAGNTTTAGAATATGATGGCTTGNGACAACATGTTGATGTCATATGNT
ATCAAATCGAAACGGNGTCANCTCCGAAGAAGGATGGGTTATTATTGACTTGACCTTA
GCCTNTTCGCTTTTGCATGGGGATANCCATTTNGCTCATTNATGAAGTTNCCATGTANTG
TACAGGCCTTGGGGNTCNTTCAAAGGTNTNNNAANCTGCAGNTCCAGTTAAACCTTT

Sequence 2855

CTTTCATGTGATCTTTGTGGCAGTGGGACAGGAAGTAGGCGCGGGCCCTCAGGTTCTCCC
TATCGAAGCGGTCTATGGAGATAGTTGGATACTCGGCCATCTGCCCTCGAAAGAACTCA
TAGCGCCGTGATCCCAGAGTCCGGGACCCCAAACCGCAGCTGAAGCCAAGGCCAGCCC
TGACNCGCCCCCGGTACCTCGGCCGCTCTAGAACTAGTGGGATTCCCCCGGGCTGCAGG
GAATTNGATATCAAGCTTATCTGATACCGACCGACCTTCNAGGGGGGGGGCCCGTTACCC
AAGCTTTTTTGTTCCTTATAGTGGAGGGTTTAAATTTGCGCCGCTTGGGC

Sequence 2856

GGGCGATTTGGAGCAAACCCCGGGGGCGGCCGCCCGGNTTGGTACCAAAANTNCAAACNA
CCANTTTNGAANCCGGCGNNGACGNNGCGGNCCNAGCTACTCTGGAGGCTGAGGNGGGA
GGANCGCTNGAGNCTGGGAGGCAGAAGTTCAGNAAGCCGAGATCATGCCACTGCACAAG
CTAGGTGACAGAATGAGACTCTGTCTCAAAAATAATTAAGGCCTCTGCCCCAAACTCG
TTAAAAGATTTTATAACCACAACCTGCTGNTTCTGNGNAGATGCATCTGCATGCCAGGAG
CAGTAAATGCAATAAAANCATTTGGNTATACTTTGAACACAAAATAAACGGGTGAGGCTT
TACTTTTGAAAAAATAAAGGGNCTCGGCCGCTCTAAACTAGGGGGGANC
CCCCGGGCCGCANGGAAATCGATA

TABLE 1
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Sequence 2857

ACATTAATTTGCGTTTGCGCTCACCTGCCCCGCTTTTCCAGTCCGGGGAAACCTTGNCGTG
CCAGCTTGCAATTAATTGNAATTCGNGCCCAACCGCTGCNGTNGGAGAGGCCGGCTNTTG
CCGTATTTGGGGCGCCTCTTCNCGCTTNTCTCGGCTTCACTTGACTC

Sequence 2858

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTGTCTCAGCTTGGG
CTTCTTCCTCCTNCATCACCTGAAACACTGGACCTGGGGGTAGCCCCGCCCGAGCCCTCA
GTCACCCCCACTTCCCAGTTGCACTTGTAGCTAGAATTCTCTAAGCCTATACGTTTC
TGTGGAGTAAATATTGGGATTGGGGGGAAGAGGGAGCAACGGCCCATAGCCTTGGGGTT
GGACATCTCTAGTGTAGCTGCCACATTGATTTTTCTATAATCACTTGGGGTTTGTACCTG
CCCGGACACATCCAGTAGGCTAAGGGGATGCTTTCTTTTCTGGGGTTTTTCGGGGGGTT
TTTTGGAGCGGGGAGAGGGATGAANGAGGTGCTCCCTTAATTTCTTTATTGAGAATGAT
GCCGTGGATACTTGAATTTAAGCANTTGTACATGGGCAGTGTCTACCTGGGG

Sequence 2859

AGGGCGATTTGGAGCTCCCCGCGGTGGCGGCCGGGCANNTACTTTGCGGTTTTTGGGACT
TGATTTTNGCAGAGGGATCGGGCACTGAAGGTGCAGTTCTCAAAATCACACCTGNAGGCT
GGCTCCTCGCTGTGGGTATCCAGGTGCTTCTGGAGGTCAATAAGATTCTTGCAGCTGTAG
TCACAACAGTCACATTTAAGGGCCGGTCTCACTGTGACGAAAGCGCATGTGGTTGCGG
AGGGAGGAAGGCAGCGGGCAGGTGATGTACACAGAGGGCACTTATAGTGATTCACATGG
TTGCGCA

Sequence 2860

ATGCGTTGCGNCTCACTGCCCCGCTTTCCAGTCTGTGGAAAACNCTGTTCTGCGCCAGCCT
GCATTTAATGGAAATCGGCCAAACCGCCNCCGGGGAGGAGGGCCGGTTTTGCCGTATTT
GGGGNCGCTTCTCCCGCTTCTTCGCTCAACTGGACTTCGCTTTCGGCTNCGGGTTTCG
NTTCCGGGCTTGCTGGGCCGAGGCCGGGTATTTCAACCTTCAACTTCAAAAG

Sequence 2861

CCCTAGGGCGTTTTGGAGCTNCCCCCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTN
CCCGGAGNTTTNTAANAAGATTTATTTAGCAAAAATACATATAGCCATTATTGCAAGACT
TAAATGAGATGNTAAATGTTCAACCCAATTTTCTTTCCTGGATAAGTTTTTCTTTCATAT
CCCTGTCAGTTTTGAAAACATAATACCAGAAGAAGGGGGGCCCAATTCCACAGAGAGCTC
CCAAGAATGAGTTTTCTGGGAGTGAGTCTGAAGTTGAGATAAACCTTTGCTGATCTTGCTT
ACGTTCAATGCATCTGGGCAGCGTCTTTGATGAGCCCTGGCGGTTAGGCTGGTGGCACTG
AAGCAGGCCTCCAGGGTCTCCTGTTAAGCAGGATTTAAGGCCAACCTGCTG

Sequence 2862

CATCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTGGGA
GGCTGACGCAGGAGGACCGCTTGAGCTCAGGAGTTCAAGACCAGCCTGAGCACCATAGTG
AGACCTCATCTCTACTAAAAAATAAAATACCAGGCATGGTAGCATGTGCCTGTAG
TCCAGCTACTCTAGTCCCAGCTACTTGGGAGGCTGAGGTGAGAGGATCACTTGAGCCCA
GGAGATCGAGGCTGCAGTGAGCCATTATCACGCCACTGCACTCCAGCCTGGGCAACTAAG
CAAGACCCTGTCTCAAAAAAATTTTAAAAAATTTAAAAAATAAGAAAATCCAAGCTAGGT
TGAATCTGAATGTTGAGCAGNTCAGTGAGGCACAACTTAGCTTAAGAAAGTCAACCTT
GCCCACTTGCCATTTGAAGGTTATTACTAGCCAAAATTACN

Sequence 2863

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAAAATTAGCAAGGAGA
CATTTTCTGCATTGTGAGAAATCAACATAGACACCTTAAAGACCCCTTTGAGAGTGTGGC
TTTTTGAATTTTTCAGATTTTGTCTAGTGACCTGCTAACACTTACGTGAGAGGCTCCAGG
TGTAATAGAAATCTAATGGCAGAATCTGTAAGTGTAACAAGCATCTTAGGAGTGAGAGA
TCAAGACCACAAAATGTCCAGAGCTATGACCACAGCTATACCTACCCATAAAATACGATA
CTGGAGTAGGGTATTTTTGTCTTTTTTCTTACCTAAGAGCTAGCTAATCAGGACAGGTGA
TGGCAGGTTCTGGAGCTCTACCAGGGCAGGTCTATTTCTTTTTT

Sequence 2864

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CGCAATTGNAGCTCCCCGCGGTGGCGGCCGAGGTCTAATTTGAATTTGTAATGAGTCTGA
TGGTATATTTCAATTTTTTCTTTGAGGGAGGCTGCTACATTGCAGAATATCTTATAT
CCCTGACTGCTTTCCACTAAATGTCAAGTGGTGACCCCAATCCAATATTATGACAACTGAA
CATGCTTATGCATCCCTCATGCCTTTATTTTTATTTTGGGAAATCTTTCAGCTTCAGTT
TTTGCTGATATTTATGTGATTCTTTGTTCTGCAATTCAAATTTCTGGGAGCCAAACAGTC
TCCTTGGTTCAGATTACTGTTTTTGAAGTAGAGTCTCTCGCTTCAGATTCTGTCTATAAGA
TTATGGCTTAACCTATGGTTGTCCTTTGATTTGGTGCCATATGAATAAAACATTATTTT
CTATGGCTATGTATTAAGAATTTGTGCAATTCTGTTTTCTTAGAAGGCTGAGGGTGTG
TTGTCAGACACCATGACTGATGTGACAGGTGTATTTTATTATGC

TABLE 1

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Sequence 2870

ATAGGGCGAATTGGACTCCCCGCGGTGGCGGCCGAGTCCTACCCCTTTACTTTTTCCCCAA
GACCATCTCAGGGTGGAGCATTCTGTCTAAGAGAAGAAAGATAAGGAGGCTCCCACCCAC
CTCTCCAAGAGCAGACATTAAACATCTTTGTGCTTTGAAGAGAGTGAATTTGGATAGTC
TTGTGATTCTCAAGACTAACTTCCAGAATTATACTTTAACCCCTTCCAGATATGGTCCGC
CTTTGGCATTGTGTGTACCTGTGATGGGGCGTGTGGTTTCCGGTTGTCTCACCTTTAATT
GTCAACCTCCAGTGTATGACTCTAGAAATATGAGGAAAAGCTTTTCAGTTTTTAAAATTG
CCATTTAAATTTAGTCTATTAAAAACAAACCTAGAGGTCTTGGGTTGCAGTTGATTTTCAG
AGTATATTAATTTAGTGGGTCCCNAAGTATTACATNTATTTATATTCTGGAATGAAAAG
G

Sequence 2871

CCGCGGTGGCGGCCGAGGTAATCCTTCGTAAACCATGGAGAGCCAGCCCAATGCACAGCA
GTGGATATCATCTTTCTCAGAGTCCAGTATCACAGAATCACGACTTTGTCCAGCTGCAGG
TGCCTGCAGGTCACACTGGCTAACTACTTCTGTGATGGGCTCTTCTTTCTGAGGTTCTGC
CAACTTGTCTACTACATAGGGTTGATCATCCTGTTTCAGGAAATATTTCTTTCATTTGCTC
TGAGCTTAATATTGTAATTTGATTTGATCTGCTGGGTCTTTGGAGTCAGGACTGGTTTT
ATCAGCAGTTTGATCTTCTGAGGTCTGGTATGTAGTTTGCTGGCCACAGAACCTTCACG
TGATTTCACAGCCTCAATGCCATAAGGAAACTCTTT

TABLE 1A

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Sequence 2872

CCCTTAGCGTGGTCGCGGCCGGANGTACAAGGTGAACCCTGAACATTCTGTGTCAGAAAGC
TAANGAAGTGCCAGAGAATGATAAATCAATCAAAAGAACAAGCGACAAGCATGAAAGG
CCAAATATGAGATAATTTGGGAATTTAAAAATGAACATAATGGATCCGTAACACATTGA
ATTTTTTAAATTCCTTGAGCCTGTAATGATACTGGAGGAAGGAGTCTTTTGTTTAC

Sequence 2873

CCCTTTGAGCGGCCGCCCGGGCAGGTACGCGGGGTGGGGATATTTTGTCTCACAGATTG
TAAGAAAGGGGTATGGAAATCCCCAGGCAACAGTGTGCTCCTCAGCTTGCTGAAACAGAC
CAAAGACTATGTTCTAATCAAACCTTCAGGAATCTCATGGAAATTTTATTTAATGCCTC
TCCAGGCACTTTTCTGAAAGCCCCACGTTAGGGATGTCTTGGCTAAGACATCTCTCATG
GTATCCACAGCAACCCTGATGAAGCTCATTTCTGGAGAAGAAGAAAGTCTCTCAACACCT
CTGCTAAGTCATCATTCTCCCATNCTCACTGCAGCAGTTCCTGGAATCTCATGAAGGGAA
GCTTGGGACCCACCGCACACCCTNTGCAAATACCTCACAAGTAACTTGGNAAATGCCG

Sequence 2874

CCCTTAGCGTGGTCGCGGCCGAGGTACAGTCCTAGCCACAGTAGTAATCACCCTGGCCT
GACTGAGCCCTCACCCCTTATACAGTGTCTCCTGCCACCCTCCTGGGAGAGGCTGTTCTC
GGCACAGCTGGCCTGGGGTCACACAGCTGGTAGGTGTAAAGCAGGCATTGGAGTCCAGGT
AGTCTCACTCCGTAGCCTGTCTCTTTAGCCACTGGAATGTAGAGCAAAGCGAGAATTGT
CCAAAGAGATAAGCTAATAAAGAGGAAAACAGGCTGGGTGCAATGGCTCATGCCTGTAAT
CCCAGCACTTTGGGAGGCCAAGGA

Sequence 2875

CCCTTAGCGGCCGCCCGGGCAGGTACATCACCCCTGCTGAGGGACATCCAGGACAAGGTCA
CCACACTCTACAAAGGCAGTCANCTNCNTGACACATTCCGCTTCTGCCTGGTCACCAACT
TGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCCA
GCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCT
CCACCTACCAGTTGGTGGACATCCATGTGACAAGAAATGGGAGTCATNAGTTTATCAACC
AACAAGCAGCTCCAGCACCCAAGCACTTCTACCTTGAATTCACCATCACCAACCTACCA
TATCCCAGGACAAAAAGCCAGCC

Sequence 2876

CCCTTAGCGTGGTCGCGGCCGAGGTACAAATAGAGCTGGAATGATGATGATCACAATGA
AGATGACAACAGTGGTGGCAATGACACGGCTGCCACTACTTGGAGTGGCCTCGGAGTTTA
ATATCAAAGGCTGGCCTGGGTTTGAGCTGGTTGAGGGAGAAGTGAGTGTATTGCATACAT
GAGAAAACCTGAGCAAAGGAAAGATGAGACTCAAATGGCAGCACTAAGACCATTTTGCAC
TGGAGTATCAGATATATTTTAAAAAGAAGACTGTAGAGTGACTTTTTGAAAGACATGGGG
GATTAAGCAGGTAAAGAGAAGCTTGAAGTGGTATTTAGAGATGCTACATTTAGTGACTTC
AGAAGGTATAAACTGAAGCAGCAATGTAGATTAATATTCAAGATATGGGGATAAAAGGT
GACTAAAGTGGGATCCAAAGCAAATGGGTGCCGAAAAACCANTGAAAGAAGAACTTGAT
GGAGGCTATGATCTAATTTACATTTAAGGGGAATGAGGAAAACCAGTGGGAAGAATTTGC
CACCTTGAAAAATTAAATACTGGAAGTTCTGACCCAAAGAAATTAGGGTTAAAAAAAAG
AAATTAANGCCTTTCTTTTGGGA

Sequence 2877

CCCTTAGCGTGGTCGCGGCCGAGGTACCTCCTTCAGTGAGTTGTTGGCAACTAGGCAGTG
AAATGAGGGAGTGACCGCTCATGGCTCATGAACCTTGCAAGTTGTGCAACTCAACTGTCC
CACCTTGAAAGGGCTCAGGAAGGTAAGAGTGTTGTTTGGGACACAGGGATTGTTGCAT
TTAAATCTTTGTGACTGTGGTTTGGTCTCAGACTGGTTTTTTCATGCATAAGTTCTCTTA
CCCTCAGGCATCTGGGATTTTACCTGTTTTTCTTCCAGTGGTGTGCCCTCTCCGCCACAT
TGTGGAAGCGTGCTTTCTCAATCCTTCAGGAAGAAATCAAAGACTTTNTTTTTTAA

Sequence 2878

CCCTTAGCGTGGTCGCGGCCGAGGTACATTATTTAGTGTAATGCCTAATGTTAGTCCTCT
TTATAGCATATTTTATACAATTTCTATTATTTAACAGGCCTTGGGAATCAAAGATGAAA
TGTGTGTCCCTCAAGTAACTCACTAATCTATTGTTATAAGTAGATTGTAATTCATGAGTG

TABLE 1A

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CTGTAACAGCTATCCTATGACAGCACTGAAGAGGATGTGGACTTCCTAGATGAATATGTA
TTGAGTTGTAGGGGAGTAAGAATTCACCTACCAGTGAAGTAGTGGACCTGAAGTGGTATT
CCAGATTG

Sequence 2879

CCCTTAGCGTGGTCGCGGCCGAGGTACAGTTCTCAGTTTTCTTATAGGAGAAATATGGT
ATATGTTTATAAGAATCTTTATGAGATTATAGATTTCAATGCTGTGGATAGTGTCTTGC
ACCCAAACAAGAAAGTCCATAATGGAATGATCTTCCCTCAGCTTCCTATCGATTTAGTTA
CCTCTTGAAAGCACAAAAATTAACATTGCCATATGTTGAATTTTTAAAAAGCACTTGG
AGTGAGCGAACATTTCTGATAAATGCCTTTAGAGATAGGTTCTTGATATTCAGACATC
TGCAGAAATGTTCTGGTTCCCAAAGTCATTTGAAATAAAAACACAGCTCCTTCAA
ACAGCACTTTTCCACATAAATCTAAGTTGCCTCTCCCTGTGGACATTCAGAACTGATAG
AACAAACACTACTCTTTTGAATTTGATGGTTCTGTCTTTAAAGTGTTTGAGGACCTAT
GCAGAGCCTGTACACTTGGGGTAGTACCTGCCCCGGCGGCCGCTCGAA

Sequence 2880

CCCTTAGCGTGGTCGCGGCCGAGGTACAAATTTATTAAGCTCTAGGTTTCATCAGATGACC
AGGAAAACATAGACTATCAGGACACAGACAAAGCAGAACTGCAGAATTATAGAAAATTCA
AGGTCTCATGGAGGAAAAGCAGTATCTACAATAAGAAAGAGACCCCAAACAGCACTCTAG
ATTTCTTTAAGAGGGATTATATTTCTCCTTCCCTCCATTCTCCCTTCATTTCTTCTAC
CTCCCTCTTTTCATCCTCTTCTCCTTTTATCTTTTCATCATTCTTTCTTAAGCATTTTA
CTTAGTTACTACTATGTTCTAAGCACTG

Sequence 2881

CCCTTTGAGCGGCCCGCCGGGCAGGTACAAAATTGCTAATTTTATTCCAGTGATGATTAT
TTTTAACTTTGGTGATTACGTATCAAATTAAGGTAATTTCTATAAAAATCTACAGCCAGTA
AACTGAAACTATAGCTAAAATGTAGCTACTGTTTTATATTTTCTTAGATGCATGTTGT
TTTATTATAATAGTTTAAATGTAGTGGTTGAATGGAATATGTGGTTTTCTCTAGAATACC
TTATGTGATTTATCTATGACTTTTTCTTTGAACCTTATGACTCTTAGTATGTAAT
TTTCTTAAATTATACTCTTTTGTGTTTATTCTAACTACTTGAGGCAGATCTCAAAAGT
TGAATAATTACTGTGCATCTCAGAGAATTGTCTTGTGTCTTTCAAATATATTTAGTTGC
TTTAGCAGTAACTCTTACATGGTTATTTGCATGACTTAATAAACATTTCAATGCCCCCAA
GTTACCTAGCAGAAAAAGTCCAATTTTAAAGACATCTGTAAGAGAGAACTTTATTTTCT
TAAATTGGAAGCACATCATTTAGTCCT

Sequence 2882

GTACACAGCAAATACAATCTTATGTCAGTTATAAAGAATAATAAATAATTTTTGAAAAG
CAAAGTGACTTGTCCATAACCACAATATTTTTCATTTTCAAATCTCATTTTATTTCTTA
TGCCACATTGCCTATAATTATACAGCTAACAATTATCCCATGCTCAGAAGAAATAAACT
GACGTAGTTAGTAATCAGTNATATATCATTCCCTTAAACAAGTATTGCTGACTTAATAT
GCATAAACTGCTGTCACATAACAAATATGACCAACAGGTAAAGGGTGAGAACAATTTCA
CTGACTACAATATTTATAGCAAAATAAAGTGTCTATATAGTGGGAAAGAAATATGCTTAA
AAAGAAAATAGGGAAAATGCCAGTAGAAGAAATAAATTAATGCAACCTGCCCTTA
AAAAAAAAGGCCTTTTATTGGTATTTCAACCTACCCAGAATT

Sequence 2883

CCCTTAGCGGCCCGCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCGCTGT
GANACGAAGTTTNNNTNTTGTGCCCAGGCTGGAGTTTGACCCACAAAATAAGGTTCCCA
NATCACCATCAACTAAAGTTCAAATAGACAAACCCTATCCATCCTANCCAGNGATTATT
TAGTATTTGNGGAAAGCCTNTAAATTTAAAGGGTCCACGAACAAAGACNGAGACNAAAGA
ATNAGAGCNACATGTAGGAAAAAGAGATTTACACAGACTNTAAACATTAACAAAACCAA
GATTGTATTACCAGAAAAAGAGTTNTTTTGTNTAAGAAACAAAAATAAGNTGNTNTNGG
GAAAAAAAACAGNTGGAAGCTTAAAGGAACTTAAGGAAACCTNCCNGAAAGA
AGAATNAAATGNGNGAAATNGAAATAGGGAGAGAAAACCTTAAAGCCCAAAAATAAAAT
TGAAATGACNCATCNTTTTNNNGAACCCAAAAAAAAGAAAAAA

Sequence 2884

TABLE 1A

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CCCTTAGCGTGGTCGCGACCGAGGTACAGCAGGCCTAATGATAAGACAGCCTACCTGGGC
TCCAGCCTGCCTGTAACCTGTGTGAACCTAGCAAGTCCTTCACTCAGTCAGACTTTGCTTT
CTACATCTGAAAAAGTCAAAAGAAAGAAAAATAAAACCTCAGCCTACCTCCCTCTCAGGG
TTGTTACAAGGGGGAAAAGAGCATAAACAGATGCAAGAAGTGCTTCCTTAAAGAGTTCA
ATATGAATTGTTTTCTGTTTAGGTTATGTTAAATCTATTTTATATTATTAATCCCTTCC
AGATGACACCCATCAAAACAAACACCCAAATGGTCCATGTCTGAAAGACCACAGACTTTTC
TTTTGGGAAAAAAAAAAAA

Sequence 2885

CCCTTTCGAGCGGCCGCCCGGGCAGGTACTTTNTTTTTTTTTTTTTTTTTCTTTTTTGAGA
CAGTGTCTCGCACTGTCACCCAGGCTGGAGTGCAGCGGTGTGACAGGCACATGCCACCAT
GCCTGACTAATTTTATCGTTTTCTTTTTTTTTCAGGTAGAGATGGGGTTTACCTTGT
GTCCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATCCACCTGCCTTGGCCTCCTTACGT
GCTGGGATTACAGGTGTGAGTCACCACGCCAGCCATTGATCTGTTGCCTCTTACTAGAG
CTTCTTGTGGATTCCAGTTTTTCCCACTCTATTTTATTCAATTTGTGGCCTTTGAAAA
TAGATCTGTTCAATTCATTTACCCACCAAAAAAGGATAAGTTCTTACTCTTTGAAATAAA
AATCAAACCTCCTTAGTCTGCCTCTGAAATAAAAATC

Sequence 2886

CCCTTAGCGTGGTTCGCGGCCGAGGTACCTATTGTATCAGAAAAATGCTAATTAATTTTT
GCACATAAAGGGCATTTTAACTTGGTTTTATTCTTTGTGATAAATATGGATGATGAATG
GTAATGTTAAACAGAATTCAAAAGTTATCAGTTTGGCTAGCCAGACACAGTAGTATATGC
CTATAGTCCTAGCTACCCAGGAGGCTGAGGCCAGAGGAGCCCGGAAGTTCACGTTTAGCC
TGGGCAGCATAGTGAGACACTTGTCTTTTATAAAAAACAACAGCAAAAAATGATCAGTTTT
GGGGATAAGTAAAGACAAAATGGC

Sequence 2887

CCCTTGGCCGCCCGGGCAGGTACGCGGGGAAAAAATATTTTTATCTTTTAGAATATCAG
TTTGTCCCTTACAGTAATGTAAAATTACATTTATTTTATCTTTAGGATATAACATCTNAA
ACAGAGGCTATTAACTTTTACACTATGTGTAAGAAACAACCTTGAGAGGCAACTTTATTA
TGCAACCACGATCATGAAGGGGATGAATAAACCACTACTTAGAAAAAAGTGCTCTAT
TATCATGGAAATGGTTTTTCATTGATCCTTTCTTGTATTTCTGGAATCACTAGAACTAATCT
CCAATCTATGCACTGAATTTTTGACATACGATAAAATGCCATGATTTNATTAATGGATTA
AAATACTTGTCTGGAAGTATANCTTTTTTAAATAATTNCAGTGGATGATAATTTNATTGA
CAAGGTGACANACCTAAATTCTGTTTTCNTCCNTGCCTTGCAAAAANGAACTTTTAGGGG
GATTAATA

Sequence 2888

CCCTTAGCGTGGTTCGCGGCCCGAGGTACAAATAAAGTATTCCAAGGGTTCAGAATAGAAA
ATGATTTCTTCCAGCTTGGGGACATTTGGGAAATTGGGATATCCTTTGGGGAAATGTAGT
AATCANTATATTCTGGGAAAACATAGTAGAAGAATGAATAAATAAATTCATTGAATTTG
GAATATGTTGCCATTCTCCCTGTAACATAATGCTATCANGATAAAGTAGAAATACCACATT
TCANAAACAGCTGGAGTAGACAGGTCTTCATAGGCTAGCTTGGGAAACCTAATAACTATT
AATAATGAAATTTTAATTATACTCTTGATTCTAAACAAATGAACACACAGTGATCTTTT
TGACTTGCTGCTTGGTTAT

Sequence 2889

CCCTTAGCGTGGTTCGCGGCCCGAGGTACTGATTGTTGAACTCCGAGTCACACTCATTATGA
CCTGGGAGGCAGATGTCTAGCCTTCAGCTAATTATGATGGGCAGTATGGAGGAGAGTGTG
AGTCAAACCTTCCATGGAGGAAAAGGAGTGAACACTCAGGGAGACTGGAGCCGTTTAAAA
GGACATGGGAGGATCTAATCAGGATCTTGAAAATTTAATGTTCTCAAAAGTTATTTCTA
TCAGTCTTAAGTAATAGATGAATTTCTTTTGCCACTGCAAAGATGATACTGTCTTGATA
ACCATTCTCTATCATCATGCC

Sequence 2890

CCCTTTCGAGCGGCNCGCCCGGGCAGGTACCACCTGACTCAGCTGGGTGCATTTGACCAG
TTTTGCCCCCATCTGTAAATATCCCTCAGTCCCCATGGAGCTGTAGAGGTGAGTGATGAA

TABLE 1A

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GCAGTGACAGCTCTGGGTAGGAACTCAGCTTAATTTCAAGTTCAGACCCTCTCCATCCT
CAGGTTCTTCTTCTGTAAATGAAGATCCCTTTGCGGTGAAACGTTTTGCAGCTCTGGAA
TCTGAGGGTGTAGGAGGAGCTACAGAAGAGGGGTATAGGACTCACCTGAATAAAGGTGGC
ATCTGTGATTACTGTGGGCGAGGGTGAGAGGGAAGAGGATACTGACCGCTAAGCCTTGCC
TTCTTAGTCCAAATTTTGGTTGTGCATTAAATATGTCTTAATTTTTTTATAACTTAACC
TCACC

Sequence 2891

CCCTTAGCGTGGTCGCGGCCGAGGTACAGAAGGCTAAGTATCGCTAATTTCTATTCAGAG
ACACAGGGACTCTACCCTTGTTCTGGCTTTATAAAGCTGCTCAGTTCTAATGTGCACTG
CACACAACAGCTGCCAGGGCCACAAACAGGGAAGCAGACGTTAGGCTCTCAACCCCTA
AGATACAGTTTTCTCTCAATAGCTCATAAGACTCTGCCCTCTGACGTGAGAAAATAGAA
TTCTGTTGTGCTTTTTAAGTATGCCTATGGCATCTTTTAAATATACCATATATGATCCA
GTATTTCTTTGTGTTTGGAGTGTGAATCTGCAGGTGAAAGAGTGTGTTCTACACGTGCC
GATCCATCCTCATTACACAAATTCACCCTCTACTTTAAACAGGGAATTTGGGCCTTTGA
CAGGAAACAAGCCGGACAGTCATGGGGCCAAGCTGGAATCAAATGTAAATATTTAATTTCT
CTCCTGTTAAAAGCAGAGTGGACCCACAGTCCCTTCAAAGTAA

Sequence 2892

CCCTTTGAGCGGCCCGCCCGGGCAGGTACCCAAGTGAAGTGGGGCTCAGCAAAGTGC
CCTGGAGGAAGTGATACCCAAGCTGAGAGATGAAGAATAATGAGTGGGGTAGCCAGGGAT
AGGTGAGAGGGAACATCCTCCAGGCAGAGGAGAAGCAGACACAAGGGAGGGGTGTGGCAA
GAGATGAACCTGAAAGGCAGTCTTGACCATATCAGAGAGGACCTTATAAGCTCATCATG
AAGCTTAAATGAATCCTTANGTCATTGGACAGCTGTGGAGAAAGAGTTTGAAGGGGAG
GGAAGTTATATGAATCACAGGAATTTTTTAAAGGTGGCTATGGTAGTAGTGTGAAAAGAG
AAATGATTAAACAGTANGCAAGCTCAGAGAAAGAAGCCCGCCAAGGAGGCTGTACCATAA
TCCAGCAGAAAGAAGATGGTGGCCTGGACTGGGGAAAGTGAAGTGTAGGGGATGGAGAGAA
ATGGATGGGCTTGGGAAATGAGAAAGGGATAGGATCCACAGGGCTTAGGATTTGAGTGAA
TAGAAAAGAGAGAGAAAAGTTAAACCAGACC

Sequence 2893

CCCTTAGCGTGGTCGCGGCCGAGGTACCACTGCACTCCAGCCTGGGCGACAAAATGAGAC
CCTGTCTCAAAGAAAGCCCTCTCCTTAGCTGAGCAGAGGAAGGGAAGGAGTGTGGCTAT
GAGAATATGATTTATGCCATTTTCTGTTTTTAAATCTAGAAGATCTTCTAAGCACAAATA
CAGCTACAATGAAATATTTTACAGACAAAATGTTAATAGACCATATTCTTTGAATTAAT
TTGTTTTTAAATTTCTCTACACATTTTTTTTTCTGGAGTCTCTTAGCTCTAAATATAT
CAATCAGATTTATAATTTTTTTTACCTGATTCAGATGTCTTACATTTTTATATTAATGA
ACCTTAAGCATGATTTCTTTGGTAAGCCAGTATGAATGCCAGTGGTTGGGGGGCGGG

Sequence 2894

CCCTTAGTGTGGTCGCGGCCGAGGTACAGTCCACAAAATGGTTTGCTTCTGAAAAAGCAG
TAGTAGTCTTACATCCAANATTATTCCTAAAATAAAGTTTCGACCCACATATATAATGAA
ATTGAAACTGCCTACATTGGCAAAGCCAGAAAGAGAGTAAAAAGATGGGGTAGGCCAGT
TGCGGTGGCTCATGCCTGTAATCCAGTACCTGCCCGGGCGGCCGCTCGAAAGGG

Sequence 2895

CCCTTAGCGTGGTCGCGGCCCGAGGTACTGTCTGTGACAAGAGCAAGAAATACATTTTGA
AGTGGTTTGTTTAGTAGCTAAAGTTATCCTGACTGATCATTTGATAAAGGATATTTACC
AGCAGTTCACAATGAACATACTACTACATGTATATATAAAGATCATAGCCTGCACAATA
AAAAGAAGAAAAATAAATAAATTAGAAAATAAATAGTTTAGAAACAAAGACACAGTATTAG
TTCTAGTTACAGAATATGATTCTCCAAATAGTATATGCTATCAGCTTCATCAACAAGTAA
CCAGAATACCAAAGACATAGAAATGGCTAACAAGTATATAAAAACATGCTCAACATC
ACTAATTATCAGAGAAATGCAAATCAAAGCCACAATGAGATATTAAGTCACACCTGACAG
GATCACTATTATCAAACTACAAAAGTCAATACTTATTGGCAAGGATGTANAGAAATTGA
AACAGCATGGAGGGTTTCTCAAAATATTAATAAAGTAACTACCATATGATCTGCAACCAC
TTCTGGGTATTTATCCAA

TABLE 1A

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Sequence 2896

CCCTTAGCGTGGTGC GCGGCCGAGG TACTTTTTTTTTTTTTTTTTTTTTTTTGGGA
GACGGGGTNTNACACTGTTGCCAGGCTGGAGTGCAGTGGTGCAAACATGGCTCACTGCA
GCCTCGACTTCCTGGGTCCAATNAATCCTCCTGCCTNANCCTNCAGANTAGCTGGGACTA
CAGGCATGTGTCACCACTCTAGACTAATTA AAAACAAAAAATTGTAGAGACAGTGTCTCG
CCATGTTGTCCAGGCTGGTCTNAACTCCTGGCAATCCTTNTGCCTTGACCTCCCAATNT
GCTGGGTTACAGGTNNTGAGGAACCTGCCTGGCACCCAGTTTTTTTAAATNAANTTTTCC
TACTGTNCCCAACCAAAATGACTTCTTATGAAGCTTNTCATCANTTAATGAGCTTTATTA
ATGANANCTTCAACACTGGNCAAGGGGGGAAAAAT

Sequence 2897

CCCTTAGCGTGGTGC GCGGCCGAGGTACAGGCGTGAGCCACCATGCCAGCCTGAATCCCC
CTTCTCAAAAGTAAC TTCCATTCACTTTGTCCCTGGCAGTCTGCTGGTGACCATGATTTT
TAAGGCTCACTCATGGGACCAAAGGCAAGAAAGGAGGAGGGTGGTAACCAGATAAA
CTTGCAACCCCTTTGATAGGACTTTTTGGGTGAGAATTTTTATGAAAATAATATATAC
TTCTACTATAGATCTGCCTCTAGTTTCAACCTCTAGTTTTAGCACTGATTTTTTCCCCTT
AATTTCCAGAAGCATGATATAATAATCTTTTTCAAAGAAAGTGGG

Sequence 2898

CCCTTAGCGTGGTGC GCGGCCGAGGTACCCTGGGGGTGTCATCAACCAAGATTAGAAATAT
GGGAAGATGAAATGGTTTTT AGGAAAGATAATGATTTTAATTTTAGAACTGTCAAATCTG
AGGTGAATCCTTCAAAAAAGTCAAATGATAGTTCCAAAGAGTGACCATGAAATCTGACAA
ATAAGAGTTATCTTAGCAAGGAGCAGTCTCATGGAAATAATAAAAGCTGAAACAAATAGT
AGTGATTGAGGAGTAAATGAGAGGTGAAGCAGTGGAGATAATACAGGTTCTGTTTGGAGG
AGACTTGGCAATAAAGGTGAAAAAATAGGATGGATGAGATAGCACTCAGCAATGAAATGT
AACAGAAITGATGCAACACGGGTGAATCTCAAAATCATGCCAAGTGAAAGAAGTATAGTC
CCTATAATCACCTATAGTCCCAATTACTCAGGAGGCTGAGGCAGGAGAACTGCCTGAGGC
CAGGAGTTTAAAGACCAGTCTGGGCCAACACAAGCAAGACCCCATTTCTTTAAAAAAAT
TAAAAACATTANCCAGGCATTGGTGTGGTGCCCCCCTAGTTCCCCAGCTACTCAAGAG
GCTTGGGTTGGGAGGACTACTTNGNNCTCNTGAGTTNAAGACCAGTCTNGGGNAATCAAG
CCAGANCCTNNTTCTTNAAAAAACAANCCATAAACCTT

Sequence 2899

CCCTTCGAGCGGCCGCCCCGGGCAGGTACTCCTATCAGTGATGTATGAGAGTTACAGNTGC
TTCACATGTCTGTCAACATTTACACTGTCACTGTTTTTTATATTAGCCATTTTAGCATAT
ATGAAATAACTGATTTTAATTTACATTACATTTCCCTGATTAATGAGTTGAGCACTTTTT
CATATGCTTATTTTTCATTTGTATATCTTTCAAGAAGTGTCTTTTATGTCTTTTCTCATT
TTAAAGTTGGGTGTCTTTTATTGTAGGTGGTTATTCTTTGTATTTTGAATATAAATCCT
TTTGATAGATTATGCCTATGATTTTTTAAAGACTCTATGTNTTCACTTATTGGGGATCTT
TCGAAGGAACAAAATTTTTTTTATAAAAATCCAACTTTTATCAGGTTTTTTTAAATNTAA
TGGNTTTTTATNGACCCCTAAAAGTCACCAATAGGAACATNATTTTTNTTTCCTTANAAA
GTTTTTATGGGTTTTTGGG

Sequence 2900

CCCTTTCGAGCGGCCGCCCCGGGCAGGTACATCTCTCCATATGCAGCAGGAATGTCTTTTT
TATTTAAGGGCACATTTACACAAAGAGCAAATGGTCCAGACTCAGTCTTCCATAACCTAG
AGTCTGAATTGATCACTCTATAAAATGAAAAATGTTNCTTTTCTTTTTTTTTTTTTTT
TTTTTTTNGGNTTTTAACTTTTTTTGAGACAGNGTCTCACTTTGTGAGCTAGGCTAGAGT
GCAGTGACACGATCACAGATCACTGCAGCCTTGACCTCCTGGGCTCAGGTGATCTTCCCA
TTTCAGCCTGCTGAGTAGCTGGGACCACAGGGCGCGTGCCATCACACCTGCCTAATTTTT
GTATT

Sequence 2901

CCCTTTCGAGCGGCCGCCCCGGGCAGGTACTGTAGTTATAAACTGACACTGTTTACAATT
AACAGTGTTCTAGAATCCANTTGTTTGGAGGGTATTTTACATTATGAAATATTGACTTCA
GATGGTCACTGCTATTTTCGAGATCTATGACTATGTTTCAAGGAGATCCATTGGTCTGAC

TABLE 1A

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AAAAAAGAGATGTATATTCCTGAAAATTGCATGTCCTCTGGAGTCTGTTGTCTGGATGG
TATCAGAGAGGTATTAGAACTGTCCTCAGAGGTCATTACAATTTTCTCATAGTGTGTC
AAGGAAAGAGTTGGGGTGTGAAAGGTCCTTCTATAGTATTGGGTCCTAACCAAGTCAGGGA
AGAGAAGCAAATGCC

Sequence 2902

CCCTTAGCGTGGTCGCGGCCGAGGTACTTAAGTAAAGAAATTAACCTCTAATAATACAAT
ATTTTATTAGTTAAAAATAAAGGACATATGTATCTACACACACATATATGCTATACATA
AATACATATGAGAAAGACAAAATTGAGAGATTAAGAGACAGAGAGAGTTTGAGATAGAG
AGTTCAAAAAAAGCAAATGATATAAATTTACAAGAGTAAATAGAATAATCATGTGAAG
GGGTATTAGGAGTCTTTGTTTTATCTTTTAACATTTCTGTAAGTTTAAATTTATTTCA
AAATAAAAGATCTAAATATTTTCAAAAAATAAAACCAAATTTTGAAAATCTAAAAAT
TTTCAAAAAATAAAAAACATAAACATAAAAAAC

Sequence 2903

CCCTTAGCGTGGTCGCGGCCGAGGTACTAACAAGGCCAGAAGCCTTCTACCTTCAGTCTT
GCTCTGGCAACCCACCTCTTCTTTCATCTTCTCCCATCTAGGGAGATGTCTAATGGGCA
TGATAGTTAGAGGTGGTGAGAGGATAGGGACAGGAAAGTCCTGCCTGTGGGACAACAGGG
ATCAGGGACTCAACAAGTCTTAGGCCTCTCACCAGGACCAGCATGTTGGGAAGCTGCCTC
TCCATCCATATTCAGTCTCAGAATGGGCAGCTGCTTCCCCTGCACCCTCATCTTGGTCTG
GTCTTGGTGATAGGGTGGGG

Sequence 2904

CCCTTTCGAGCGGCCGCCCGGGCAGGTACAGTGGTGACAAGATCTCAGCTCACTGCAACC
TCTGCCTCCCAGGTTCAAGTGATTCTCCTGCCTGAGCCTCTGAATAGCTAGGATTACAGG
CACGTGCCACCATGCCTGGCTAATTTTTGTATTTTAGTAGAGACAATGTTTCACCATGT
TGCCAGGCTAGTCTCAAACCTCTGACCTCAAATGATCCACCTGCCTCAGCCTCCCAAAG
TGCTGGATTACAGGCGTGAGCCACTGTGCCTGCCCTAAGCCTGTGTGTTTTATTCTTCTG
ACTTGCAGGCTAAAGCGGCAGCTCTTCCATATCTCATTGCTATCTCCTAGGGCTTCCGCT
AGGAGACTGATCTGGGGCTAGAGGCCTCCCTCTGTGTACACGAGAATGCTGGAAATGTCA
CCTCTCAGGGCTCTGCCTGCCTCTCAGCCCTGAAAGCCATGGTGGAAAGGGGTGGCGCTT
GACATAGACATCTGAGGAAAAGAAGTGAGGGAGGGTAAAGGGTGGTGCAGTAAGANGAAG
GGGTNNGGAAGG

Sequence 2905

CCCTTGGCCCGCCCGGGCAGGTACATTATCATTATTTTATATCTTGCTCAATCTTTTAGG
CGTCAATCTCACATCAAAAAGTTTATTGGCCTATAACGGCACGAGCCAACTTCAAATTAT
TTTTTAAAGTTTTGTGATTTGTAGATTATGAATCTCTGGTAACTACTTGTAACATTTG
GCTCTGTTTTCTGTAATATTTATCCCTAGCTAAAAAAATTTCTTACATCTTCAGAAGAG
CTATAATGTTGACACCTAACTACACTGTAATACTACACAGTAATAGGACACTAAGCAGAT
AGATAGGTTTTTAAAAAATATTTGTATTTTCAGCACCTGGTAATACAGTGGTCTA

Sequence 2906

CCCTTAGCGTGGTCGCGGCCGAGGTACTTCGTTGGTGCCTCAGTCTTTAAGGATTAAC
GGAAGAATTTTCTTCTGCATAGAACTTTATAAAATAACGACATTGTTAATAATTCAGG
CATAATATTACATTATACCTTTCTTGAATGCTGACGTTGCATACAAGGGTGATCTGTA
CCTCCATCATTTCCTTGCTCTCACTTTTAGACCTATTTCTGACATAANAACCTTGGTGG
GTAGTTCTGGATTTTTTTTTNCTTCTTTNTTATTTTTGAGACAGGGGTCTCACTG
TGTCGCCCAGGCTGGCATGCANTGGNTGCTCAAGTGATCCTCCAGCCTGTGCCTTNCTGA
GTNAGCTTGGGACAACAAAGCACAANGCCACCAGGTNCTGGCTAATTTTT

Sequence 2907

CCCTTTCGAGCGGCCGCCCGGGCAGGTACATCACCTGCTGAGGGACATCCAGGACAAGG
TCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCA
ACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACC
CCAGCCTGGTGGAGCAAGTCTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGG
GCTCCACCTACCAGTTGGTGACATCCATGTGACAGAAATGGAGTCATCAAGTTTATCAA

TABLE 1A

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CCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCA
TATCCCAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGA

Sequence 2908

CCCTTAGCGTGGTCGCGGCCGAGGTACTTTGCTAGTATTTGTGGGTTTTGTATTTACAT
TTAAATCTTAATGTAAGATTTAAATGTAAATCTTAAACATCTTAAACACATATAGTTAA
GGTGTGAGGGGAGATTTAACTAATCTGTTTTTCTTTTATTCCACTTATTAACCCAAA
TGTTTAATCAGTTGTCCCTAATATTGTTTAGTGAATAATAATTGCAAATAATATGGTTTT
TATATTTTGCAAGGCAATTTTCCTTCATCCTTTATTCTTTTAAAAAAATTTCTGGA
CTATTTCTACATTATCATCCATCATCCATTATTATT

Sequence 2909

CCCTTAGCGTGGTCGCGGCCGAGGTACATATGGATTTGATACGTAGATATAGATTTAAGA
CTAGAAATACTTATAGATATATTGGTATATAAATGGTATTCCAGTGCCCTTTTATAGGAT
AAAATTCATTCTTATATTAGAAAAATCCATTACACATAATTTTTGATTATTCAAGACAT
AAATGTTGAACAACCTAAGTGCTAGACAATATGGTAGGTGCAAAATTAACACTAGAAAATT
CTTCCCCAGAGCACTGATTTATCATTACACAAGCACAAATCTTTAATTCTCTAATCACAT
AAAATTATTTTCTTCTAATAACTTCATCTCAAATTCCTTTGGTTTCTGTGAAAAGAATC
TTATAATATGTCACTATACATACAAATTATGAAAAATTTATGCAAACATACATCCTTTTC
AGGAAGAACCACAAATCTTCCTGCTTGAGGATCATTAGAAGGCAAATTATTTAATC

Sequence 2910

GGTCGCGGCCGAGGTACTTAGAACACTGTTGATGGAGTATATCTGTTGTGAGCCTGGTTT
CTGTGTATGTGTCCAATTCAGTGATAGGAGAAGAAAGCCTGTAATTACATTTGCATAAAG
TGTTTGGCTGCTAAAGAGATGTAATTCATTATTCCAAACCTTTTAATTCATATTTAAAA
TATAAAACTAGTATATATATCAAGGAATATTTTAGGAAATCTTGATTTACCTGTAAGT
GTCTAACTGTGTATTCAATCAGTAACCAATATGGAAATTGCAGAGTTTCTTCATCAGAAG
ATATGAGTTTAAATTTTATATTTGGCATGCACAGCAATATATTAATGCTGTGCTTAACT
AGAAAGTATTGTGCAGTGTGATGGCCTTTTAACCTCACAAATACATTTTATTTTATTTC
CCTAGACTTGACATGAAGTGCAATGTTTCATATTTACCGTTTGGAGATGGGTANGATA
CAACCAGCATAGCTCCATCTNCATGGNCCATCTTTGATTTTCATGCCNCCTTTCTTT

Sequence 2911

ACCCNTANCGCGGTGCGNGCCGAGGTACTATTTGGGGGATCAAGATNTGNAANATTTAAA
CTGTTTTTGGTAAAACTAGCACTGTTGGGAAGAATGCTGTGGAATACCACAACTAGTT
TNGCAAAGGGGAAAAGAATGTTNANAAGTGCTGATTGTATTTAAACATCAGTAGTGAT
AATACAAGGAAAGCTTTTA

Sequence 2912

CCCTTAGCGTGGTCGCGGCCGAGGTACAGTTCTCAGTTTTTCTTATAGGAGAAATATGGT
ATATGTTTATAAGAATCTTTTATGAGATTATAGATTTCAATGCTGTGGATAGTGTCTTGC
ACCCAAACAAGAAAGTCCATAATGGAATGATCTTCCCTCAGCTTCCTATCGATTAGTTA
CCTCTTGAAAGCACAAAAATTAACATTGCCATATGTTGAATTTTTAAAAAGCACTTGG
AGTGAGCGAACATTTCTGTATAAATGCCTTTTAGAGATAGGTTCTTGATATTCAGACATC
TGCAGAAATGTTCTGGTTCCCAAAGTCATTTCACTTCGAAATAAACACAGCTCCTTCAA
ACAGCACTTTTCCACATAAATCTAGTTGCCTCTCCCTGTGGACATTCAGAACTGATAGA
ACAAACACTACTCTTTTGAATTTGATGGTTCGTGTCTTTAAAGTGTTTGAGGACCTATG
CAGAGCCTGTAACACTTGGGTAGTACCTGCCCCGGGCCGCGCTCGAAAGGGGC

Sequence 2913

CCCTTCGAGCGGCCGCCGCGGCCGAGGTACAATTGGGTAGGCCCCAGAAGAGGAAAGAGAGCA
AAATAGAGTAGTCAGGAAAAGAGGGCCAGTTTGGGCGCCTGTTAGCTCCTGTGTGGTGT
GAAAGGCACTCAGATGTTCTCCTGCATCTCTGATGGAACACAGAACCTGGCTCAGCTGAG
AGACAACAGCTCTGTGATGGGAGGTTGAAGTGACCCACAGCAAAGTGGAGAGGAAGTT
GTTGAACAGAAGCTGTGGCAGAGACTCAAAGAGGCCTATAATGCTGGTGAGAACTATGGT
GGCCTGAGTCATC

Sequence 2914

TABLE 1A

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CCCTTAGCGTGGTCGCGGCCGAGGTACTCACCTGCCACATCCTAATCTCAGCTCCTCTCT
CTCCACCCTCATCCACCTTCCATAACATGCTTTAGTCCCACCCTACTGTCAGTTATTCC
TGCAAAGAATACAACTTACAGCCGGGCGCGGTGGCTCACACCTGCAATCCAGCACTTTG
GGAGGCCGAGGTGGGTGGATCACGANGTCAGGAGATTGAAGACCATCCTGGCTAACACGG
TGAAACCCCATCTCTACTNAAAATACAAAAAAAAAAAAATTAGCTGGGCATGGTGGCGGG
TTGCC

Sequence 2915

CCCTTTGAGCGGCCGCCGGGCAGGTACTTTGTTTATGGATCTGTTGAATCTGAGGAGAA
GTGATTGCTTTGAGTTAGCTAGTTTTAAATTCATGACACTTTCCCAACATAATTAGGTAT
TTGAACCTAAGTGTGTGCTAGTGTATTGTATATTTTTCATTAATTACTTTATTGAAAGTT
GCTTTGGGAATCAATTCACCTCAATATATTTTACTGTTCTCAGTGAAGAATGTGACTAAT
AAGTATTTGGACTTTCAAAAAGTGATACAGTCTTTGTGATAGTTTTTACCTTTACATTA
ATGAGTTGGAAAATAAC

Sequence 2916

CCCTTTGAGCGGCCGCCGGGCAGGTACTTTGTTTATGGATCTGTTGAATCTGAGGAGAA
ACTCTGTCTCGGAAAAAAAAAAAAAAAAACGAAAAACAAACAAAAAATAAAATGTTCACT
TTTGGGCTCTATGCCCAACAAGTGAGGTTGCTGGACTGTGACTACAAGGACACCTGAGCT
GTAAGTGTGTCCATGCATCTCATTTTCTCTTGAGAAGACTAAAGAAGTACCTTTAAAT
AAACACAGCTCCATGGTGGCCCTTCAAAGTCATCACCTCAGGAGGCCACACACGTGCC
TGAAGGATGCTGCCTTGGCTTGCAAACCTCTCAAGCTCCCCAGAGTAGCCTTCANGGTC
CCCTCCCCGCTACACAACAGCAGCCAGCTTTGCTAGCAGTCACTTCTATGCTTCTCTCCC
ACTGACAGTTACTGNGAGTGAGCCTCTGCAAGTATTAACAGCGCCTAATTAATGCAGTGA
CCCAAGATACAAGCGGTGACAACTCCTTACCCTTCAAGTANGGCCTNTGTGGCTGAAAA
TTTTACAATGGGCTTGTGAAGGGGA

Sequence 2917

CCCTTAGCGTGGTCGCGGCCGAGGTACATTTACAGAAAGGCCACTGCAGCTGCATCATAG
TTCTATAACTCTTCAAAGTCCCCAGGCACCCTAAGTAGATAGCTTGAAGCTTCACCTTTA
CAAAGTCCAATCCATTGCATCAAAAGCCTACATTATCCCATTTCTGTGGCCTAGAGATT
ACAAATCACCTGAAGTAATACCAAAACCCAGTGAGTAAAGACGGAAGTAAATCTAGTGAG
TTTCCAACCACCCACCGCCCCCGAGATCTTAAAGGAAGCAGTAACAAGCAACTAGAACTC
ACATGAGAAATTTATAGGCCAAGAGATTTAATGTAAGCATTCTTATAATTAATACCTCT
TACAAAAAATGCCATTTAATCAGACAAGGGGAAAAAAGTANCATCAAAAGAGATGCTGAC
AAGGGAGACAATGAAATCAAAT

Sequence 2918

CCCTTTGAGCGGCCGCCGGGCAGGTACTTTTATAGTAGAGACGGGGTTTCACCGTGTTAG
CCAGGATGGTCTCAGTCCCCTGACCTTGTGATCCACCCACCTAGGCCTCCCAAAGTGCTG
GGATTACAGACGTGAGTCACCGCGCGCAGCCCGCTTTTGTGGTTTCAAAAGTTCTCACTT
GCTAATGTCATGTTAGAGATACAAATTTAAAGTATGCTAAATCAGTGGAGAGAACAGATG
TTAATCTATAGACACTTATACATGCACTAAGAAAGTTGACTACTATACTGAAGTCCCTT
ATAAGAAGGGAGTTGTTAAGGATAAGGAATGTGGATTGGGCTCTTTCAGAGACTCCATAC
AGGTATATTTAATTAGCAAAGGAGTCAAAAAACACCAGTTGTTATCAACAGCACTTTGC
ACATGTTGGGATATGATTTGCCAACTGGTGAGACTATTTAGGTATTAACATANAATATA
TGTCAGCTTTTGGGGAGAAAAAAGTAGTCTAGGACAGTAAATAGTCTTATTTGCTTAA
TGAACCCATAAACNTAGGCAGCATTCTTCAAAGTGGTATTNCATGGATCACCAATCCTT
ATAAAA

Sequence 2919

CCCTTAGCGTGGTCGCGGCCGAGGTACAGAGTATTTTAAATCTTTAGGGGATCAAGATGTC
AGATGCAAAACAAAGCTGCCATTGCAGCAGAAAAAGGAAGCTCTGAACCTGAAGTTACCCCC
CATTGTCCATCTCCCAGAAAAACATAGGCGTTGATACACCAACACAAAGTAAGCTGCTAAA
ATACAGAAATCCAAGGAGCAGCAGCAGAAAAATTAATCAGGTTAGTAATTGATGGAGCCC
AAAAGAAATTTAGACAGAACTGGGTAAAAAGAACCTCTATTACCACCACCCTGATT

TABLE 1A

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ATNCCTCAANACTATGACCAGTGAAAATGAAAAAAAAAAG

Sequence 2920

CCCTTAGCGTGGTCGCGGCCGAGGTAAGTTGTGTTGTTAAGAGTTAAGGCCTTAA
CTTGGCTCAAATAAATTTAACTGTGATTTCTCTAATTTTTAGTGCTACTGTTTCACCA
GACACCTAGAGTCAATAGTGCCTAGAACTACGGTGTCCAGGGCTTGAGCAAGATACTT
TAGTGAATATAAACACTAACGAGACCTTGCCTTTCTCAAGCCTACAGGATATCAGCCTA
TTTGAAAAGTGACACTGGCTTTACACCCAGAAGCCACAAAATAGAATGATGTAAGTAA
TTTTTTGGTAGCTCTCTGGGTAATTTATGTGGTGTAGGACTCTTGGGTTTGAAAGNAA
AGAGACTCGTGATCCCATTCTGGCATTGACAGTAACTTCATTGGA

Sequence 2921

CCCTTAGCGTGGTCGCGGCCGAGGTACAAATTATAATACACATACCAGACAAATTTTATT
AAATAATAAAGAAGGGAGAGAGAAAGAGCAAGACACTTTTTAAGCACCATGTGCCAGGCC
AGTGCTTGAATCTCTTCTACGTTACTTCTCCTTATTATTTAACCGTTATTTAAATGTTA
CTACTCCCATTTTACAGATGGAGAAATTTAGCTTAAGGTAATGACAAGATTGAACTTCAA
GTTTTCTGACTCCAAAATATGCCCTCTTTCGACCACACCGTATTATCTCTAAATATGGAA
AACATTTCAAAGTAGCAAGCGTNTTCAGAACAAAAACNAAAACAATCTAAGGGGGCTTA
CACATTATAAACATGGTTTCGGGGTCAT

Sequence 2922

CCCTTAGCGTGGTCGCGGCCGAGGTAAGTTGAGAAAATGCACAAAATCTGACTAAGGAGC
CATAAGACTCTGGGTGCAATAATTGAAAAAATATTTTAGAAGCATAATATCAATTCAT
CTAGTTTTAAAGTTTTACAAAATTATAATAGGGAATTCTGCTTATTTACAAAATAATTA
TCTGACCTTAAGAGGATTTTTCTAACATCACATAAACCTGATGGCTTTACACAGTGATG
ATGAGCTATTATTTTCAATTTTATCCTGATAAACTACATAAGAATTGCAATTTTTATATGC
AATTATTCATAATGTATGTTTGGATTTCCCTGTTTAAATCTATTAGAGTCCTACTTTAT
GAAAAATCTATCATTTAATATTCTATTTAATACTGAGATGAACATACATAAAAGCAAACA
GATGAAGAAGATGAGTAATATCTCAGGATCTGTAGCCATCAGACTATGAGCAAATCATAA
TATATTATTATAAGTCCCTTCTGTTACAGTCAGATATTTAGAAAAATAACAATAATGTA
TTAAAAACGGAACCTTCTCTGGTCTTTAAATAGCACAAGTAATCAACTGATAAATCTAGA
TAATCTTATAGCTCTCTATACCTATNGGTTGGGTTTGCCTTTTCTA

Sequence 2923

CCCTTAGCGTGGTCGCGGCCGAGGTAAGTTGCAAAATTGCAAGGGCAAACCTTTGTGTCTTAC
CACTATGATGGGAGAAGAGTTAAATAAACAAACATAACAACAACTAACTTATATACTCTG
GTGAACACCTCGATTTTATGATNAAAGGGAATATACATTTATTTTCAAGAACTGANTTAC
ACTTTTACAAAGTTGACCATATATTAGTTAATAAAGCAAATCTGANAACATATTAAACA
ATTATCATATAAACTACATTCTTTGATCAGAATGAAATTAATTAGAACTCAGTATAAAT
AAAGAACACCAAATAATGTGCAAGTCTGGAAACATCCTTCAAAGTAACCTATAGGTCCAC
CNNNNNGGANANAAACCAANNCAANTNATGTTCTGCCCCGGGCGGC

Sequence 2924

CCCTTAGCGTGGTCGCGGCCGAGGTACGCATAGGAAGGAAGCTGTCCAAGCCCTCCATTG
CTCTTTGAGCTCATCATGTGATTATAGGGAAGGGGAAAGGGAATGATTTCTCAGAAAAA
TATACTGATCACCATATATTCTTTCCGGGATGCTAAACAAGTATCCAGAAAAACATTTACA
TGTAATACATCTACAAATCCTCTTTCCAGTAATGCTTATGTCCTGTCATCTGAGATATA
AAATCTTTCTGGGTTACTAATTTCTTAATTTGGCCAATTTATTTAAGATGCTCTTCAAA
GTTTTAAATTAATTGACT

Sequence 2925

CCCTTAGCGTGGTCGCGGCCGAGGTACAATTTCCACTCTTAAAAATTTACTAAGGTTTGC
TTTGTGGCTTAAGATATGGTTAATTTTTATGAATGTTCTCTCTGTCACACTATTATTTAG
CATTGTTAAATATCTAATGTCAATTAGCTGAGAAAGAGAAATGAGGCAAACAAATTAGAA
AGGAGAAGGTAACATTATTACTATCAGATGTTATAAAAGAACCAACAGGACAATCTATAT
AAACATCCCCGCGTACCTGCCCGGGCGGCCGAAGGG

Sequence 2926

TABLE 1A

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CCCTTNTTGTGGTCGCGGCCGAGGTACAGTCCACAAAATGGTTTGCTTCTGAAAAAGCNG
TAGTAGTCTTACATCCAAGATTATTCCTAAAATAAAGTTTCGACCCACATATATAATGAA
ATTGAAACTGCCTACATTGGCAAAGCCAGAAAGAGAGTAAAAAAGATGGGGTAGGCCAGT
TGCGGTGGCTCATGCCTGTAATCCCAGTACCTGCCCGGGCGGCCGCTCGAAAGGG

Sequence 2927

CCCTTAGCGTGGTCGCGGCCCGAGGTACTTTAATGTTTCTTATACTTGTTTCTTCAGAA
TTTAATTAGTTTTAAAGGAATTTTTCTCATTATAAAATACATAAACTCTCAAATTCTTTT
TGTTTTGTTTTGTTTTTTGATGTAAGTTCTCGCTCTGTCACCCAGCCTGGAGGTTGCAG
TGAGCCGAGATCACACTACTGCACTCCAGCCTGGTGAC

Sequence 2928

CCCTTAGCTTAGCGTGGGCGGGGCCGNAGTACATTTACAGAAAGGCCACTGCAGCTGCA
TCATAGTTCTATAACTCTTCAAAGTCCCCAGGCACCCCTAAGTAGATAGCTTGAAGCTTCA
CCTTTACAAAGTCCAATCCATTGCATCAAAAGCCTACATTATCCCATTTCTGTGGCCTA
GAGATTACAAATCACCTGAAGTAATACCAAAACCCAGTGAGTAAAGACGGAAGTAAATCT
AGTGAGTTTTCAACCACCCACCGNCCCCGAGATCTTAAAGGAAGCAGTAACAAGCCACCT
AGAACTNCCATGANGAATTTTNTAGGCCNAGAGATTTTAAATGGTAAGCATTNTTATAAT
TAAATACCTTTTACAAA

Sequence 2929

CCCTTAGCGTGGTCGCGGCCCGAGGTACCAGCCAGTTTTGAGATATACCTGGTTTGCTTT
AATGTTATTAAATTGCTTTGGTGAGTTTTGCAAATGGACAATTGAACTTTGTTCTGCCAA
ATTCTTTTTTATTGCATTTAACTTCAGGGTTTTTTATTTCCGGCTTATTATGAATGGAT
TAGTCATTTTGTGAATAACTCTTCATTGAGTTTAGGGAGAAATAGGACGTTAGATCCGAA
GATGCTATTTGTTTAATCACCAGAATGGACAAAATTATACTTCATTTACTATCAGGGAGG
CATGGGGAGAATAGAGGCCTAGGGGTGCCGTCTGTGGCTCTTACTGTTTTGTGTATCT
GGTTTTTTTTTTTTTTTGTAGAGGGCTTCCATTATGTTGCCCGTGCTGGACCCCAACTC
CTG

Sequence 2930

CCCTTCGAGCGGCCCGCCCGGGCAGGTACGCGGGCAAGTCTGCATGGCAAAAAGGTGTCC
ACAAGTGTGAATGGCTCATTTTTAATGACTAGCCAACAGCCACTTGTAAGATGTAATT
GAAATTGTTCAAGAGATTAGGTTCCGTCTGCTTTGNCCCTCTCTCAAAAGTTTTCATGGA
TCCAAGCTATTCTTAAGCATTGTTAATCTAGGAAATAGCCTTTATGGACTAATNATAAG
AAAGAAAAAGGCANATTTTTAAAGATATTCCAAATTCAAAAGAAAATAAGTTTGGGCAG
CCTGACTTTTGATTATCTGTAAAAAATCANGGCCAATAGTTTTGAACGGGAAGAGTAAAT
ATGAANGGTTTTCTAAACCAGTTTTTCTTGGAAGAAGAAGGGGTGAGNAGGTTAAGAAA
GTTNTTCTTTTTTNATCNAGCCATGTGCCCTACCAAAAAACATAAAATGGTGGTTTCCT
GTGAACCCCTCAAAAAGTAAATCAGTGAGTGNGATGNAGGGAATTNGGG

Sequence 2931

CCCTTAGCGTGGTCGCGGCCGAGGTACTTGAAAACCTGATTCCCAGAGGGAGGGTAACA
TAGAGCAAAGCCCCCTACTTACCCACAAAGAATATTCGGTGTGTGGCAAAAAGGGGAAAC
TTGTTATTTTAAGTCACTAATTNAAAAACCTAGCTCAATCTAATACTAGCTCAATCTA
ATACACTAATTTTGTTTTTAAATTAGTGTAACCTAATTTAAACCTAGCTCAGTCTAATAC
ACTAATTTTGTTTTTAAATGATAATACAGTAATGAATACCTAGAAGACAAAGGTTAAGGG
AAAGGAAAAGAGAAAGAGGTGCTGAGAAAAAAAACAAGGGGAGTTTGAAGTAAAGTTAA
AGAGCTCATTAATAATTTTACAGATCATCCATCTTTTCATCTGAAGTCCGTATCTATAAA
TCCTGAT

Sequence 2932

CCCTTAGCGTGGTCGCGGCCGAGGTACCTCCCCATCAGTGACATTAAACATTACATATTAA
TTCAACAGGACATCTCCTATATGCCAGGTAGTGTTCTAAGTGCTGAGTGAGTTATAACTG
TAACAAAACATGCCTGCCACTTAAGAACTTACAGGGTAATGAGTTAAAAATGAACACAT
AAATAAGGTAACCTGNTGATAATGGGGAAATGCTNNGAGGAAAATAAATTGGGGAGGCNG
GGCGGGGGGGT

TABLE 1A
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Sequence 2933

CCCTTTGGCCGCCCGGGCAGGTACTGAAACATCAAAACACCAGAATGAACATCAGGAGGG
AAACATGAAAGTAGCCACTCCAAGTAAGGCTCCAGAACATACTCAAATGAAGGAACCAGG
GCTTTACTGCGTGACCTAGATCAACAACAGAGCTGTTCTCCTTCTTTCAGCTAATCAGGA
GCATTTAGTTGGGATTGGGAAAGAGGCAAAATATACATAGAGGTAGAAAATGAAGATTTA
TATGGATAACTTCACAGCTGTTTTCTGTGAACCACATTTCTAGCAATAAACTAATCCAA
TTGGGAGGGGAAAACAATATGTGAAGAA

Sequence 2934

CCCTTTGAGCGGCCCGGGCAGGTACTTGTGTTGTTTGAATGGTATTTTGAAAGCAA
TTGCATAGTTACTATTGATTCCTCAAATGCATAATGGGGATGCTTCTGACCCGACTTGC
CTTTTAGCAAGTTGAAGGTAGGTATGCACCGACAGGGCTCTGACTTCACCAGAATAA
AGTTAGATTGCAATAGTAGGAGACAGATATAAATAATGAAGGAAGCTAGAGTTATGACGG
CTTTCTGGAATAATGTTGGGAATTGGAAGAAAATGTGGAAGAGAGTTGAGTGAAGAA
AGACTAATAGAGTAGGAGTATTAGTTTTATGAGAATGTGAGTAAATCTAATATTGGATAA
ATGAATCTAAGGCTACTAATACTACATTTTTGCAACTTACATTTTTGAGTATTTGGGTAG
TAAATCACTCCGATAAAACTTTTAGAGTGGTTCACCTNTCAAGTCACATAATTTGTG
TTTTATCNACATATACTTGGTTTTTTTAGTCCAAAATANTGGTTNGGANTTTCTTGGNTA
CNCCTNACTTTGGAAANACANTAAACTAGCCATTTAAAAATTAATTCCAATTAATTTGC
ATGTTATTTTTTTTTTAAAGCATTNTCCTNNGGGGATNTATNGNCTTTGCAAATTT

Sequence 2935

CCCTTAGCGTGGTCGCGGCCGAGGTACGCGGGGCAAGCAGGTGTTCCATGAGCTGAGCCA
GCAGACCCATGGCATCACCCGGCTGGGCCCTACTCTCTGGACAAAGACAGCCTCTACCT
TAACGGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCC
AGTCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGC
TCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCA
ACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTCACCATCACCAAC

Sequence 2936

CCCTTTGAGCGGCCGCCCGGGCAGGTACTTTCCAGGCTATTAGTATTATCTAATGAGT
GGCTTAAGATACCAGAAACACTGACTGAGGTCTCCACCTGCTTCTGGCTGAATGAATGG
GAGCTTCTAGCCATTGAATAAGAGGCAGTAGCCAATGTTCTTATTCTGAATGGTCCAGG
TTGACTTTTATAAGAGAAACACTCANCCTTTTAATTGCTGAANGTCTGGCCCATAGACTA
AGATTGCACATTCTTAGTCTAGGTTCACTTGAAGTACTGCACCCACTGACGATATATT
CAGTTCAGGTGTTAACTCACTTGGATAAGCATNTGGCCTGTCCT

Sequence 2937

CCCTTAGCGTGGTCGCGGCCGAGGTACTAAANACTAACATTTATTGAGCACTNACTAGAT
NCCATAAACTGANATTGNCNTTGATCTNTGATTAATTAATCTCACAATCCTTGCTTTTCT
GAAGTATNTNATTCAATCCTTTGAATGTCCCTAATGCACAGATAAGGAAATAGGCTGCTC
TNCANATAAGGAATACANATCCTTGTGGATTCAACCCAGATCTGACTTGAGGCTAAACTC
CTAACCA

Sequence 2938

CCCTTTGCCGCCCGGGCAGGTACGTTTGTTTATCAAGCTAGAAAATTCAGATAATAAAGT
CAGCATCTGGATGAGGTAACACATTTTTCTGCCATTCTAATCTCCTCTCCTGGTATTC
AAGTCATAGTACCGGCCCTTTATCCCCAAAGAGTCAATTCTATTGTTCTTTCTTTCATAT
AGATGAGAGTCAGAGAAACAAAGTAAGGTTTGGGAGAAATGGACATGGTATAGTTTATGC
TAAACATTCTAATATACAAAAAAATTTAAGTTGTTTTGAAACAAATAACACCCAAAGT
CTACACATTTATAGTAATAAATAATTATCCAGCTAATTCAGATAAAAAATTTGTTTCTAAC
TGGAAGGCCAGAGTCTGTATTTCTACAGACAATTTAAATCGAGCCTGGAAGCAAATA
TCCAGATAATTTGGATCCCTTCCCTCCAGTTTACCCAAANGAACAAGTTGTTTCAAGGTA
GGGCACAGTTATACCATGTTTGGATCCACATGGATGAAAATTTACTACT

Sequence 2939

CCCTTTGAGCGGCCGCCCGGGCAGGTACCCAGAGGACCAGATGATTGATGGGTTCTACC

TABLE 1A
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ACGAGCATCTAATAGCGACTGCTGCAGAACTGGTGTGGAAAAGGTTTCTATTTTATAAAA
GAAAGTATCCAGAAGGCTAAAGGCAGTTGTGGAATTTATTTCTTCCCAGTGCTCTGATTG
TCAAAATTTGAATAAAGCTCAGTGAAAGGAGGACAGTAATTAATGACTTGATAGCCAAAC
ATCGTAATGATGATTTAGTGATATACTAGACTGGATGAAAGAGAGGTCACTGTCTTTTCA
CTATGGATTTCATCATAAACAGTATCATT

Sequence 2940

CCCTTAGCGTGGTCGCGGCCGAGGTACCAACTCATTATAAGCAGATCACAGTCATATAGT
GAGAGAGAAGGAAAAGAAAAACCTATGTAGATCTAGAGGAATTACCTAAGAATTCCTAAT
TACATAGGATTAAGCTCTGGGCTAACATCAAATTTTAAGTAATTACTAAAATAATTTCTT
TTCTTTCTTTTTTTTTGAGACAGAGTCTCATTTTGTACCAAGGCTAGAGTGTAGTGGC
TTGATCTCAGCTCACTGCAACCTCCACCTCCCGGTTNCAGGTGATTCTCCTGTCTCCAAG
TAGCTGGGATTACAGGCATGCACCACCACCTCCAGCTCCTTTTTTTATTTTAGGT

Sequence 2941

CCCTTAGCGGCCGCCCGGGCAGGTACAGTTCTGCTCAGAATGCCCTATCTCCTNANTAA
ANNNNAANGNNGGAGANANGNCCTATTTTGGGAGAACTAATTTTGCAATTCCTGCCAATT
TTTATGCATTTTGCCCTTGTTCCATAATTCAGCACCTCCATCATCTCTTCATCACCTCC
ATCAAGTACTTTTCACTTCCTTTTAAAAGCAAAGATCTCTATTTAATGTAATGCTTCTCA
GTTTATTATTTCATTTTATTTTTCACCATGCTATCATTTTACTGGGATTGTCACTG
CTTTGGTTAATGCTCTGGTTACAAAGTGGCATTGCTGTGGGGCAGTCAGCTGTAACCC

Sequence 2942

CCCTTAGCGTGGTCGCGGCCGAGGTACAAGGTGATACATTCTAGCCTTCTACAAAGTGCA
CTTAGACCANGATATTCTTTTCATGATGGCAGACAAATGAGGAGTTTCTTTTCATTATCTA
ATGAAAAAAGAGTTGGTCTATATTTTCTCAGTGTATTCCTATAGGGAAGAGAGTCTTATT
GTTGATAACCTTTTCAGACAAGTAAGATGCTTCTGCATCCTATGAGGTATTCCTAAAGCCC
CTCTTTAATCTCCACCATTTGTGCATAATTTTGTGATAATGAAGCAGTTATTTTCTTCTCT
TGATAGACATTTTATGAAGGCAGAGACTATGCCACTCTTGCTTACAGTTGTAGCTCCAGC
ATCTAACATGGTGGCTTAACACATAGAAGATGCTCAGTAATTAATGTTAAATGAATGGG
ATGGGTGGGTGGATATGCCCTAATATGATGCAGCTTGATTATGCTNGAANTCTGGCTGGA
TTAAGACATCATTCGAAGAAGTAATACCAGTANTCTTTAACTGTTGCCCTGTATCTTA
CACACCTGAAAGAGACATCTTTCCAAGGGTGATNAAAAAAAAGGTCATACCCTTTGAAA
AA

Sequence 2943

CCCTTAGCGGCCGCCCGGGCAGGTACTTAGATTTGCTTAGATACCTGTAAAAGTGGGATT
GGTATGGGATAAAACGTTCTTGCTGCTTGCAAAAGTCTTTGGAATATTCTTTGGGATA
TTTTGGTGCTTAGGAAGTGCTTTTCAGGTTATATTAATATATGCTTAGTCTTCATGCTTT
CAAGTCCTGTGGGACGTTAATGTTAGTCTTTTAAGTTGAGTCCTTTTTGGTTATATTAAG
AGGTAGTTCTTGATGTTTCAAAGGCCATCCAGAAATAGGAATGCCTGAACAGGAATTTCC
AATTAAGTCGGTCAGAATCCTGAA

Sequence 2944

CCCTTGAGCGGCCGCCCGGGCAGGTACGCGGGACACAACTAACCTCTAATGTCAATATA
CTGTGAAAAACACTGTGATACAGATATGTGGAGGGTAGTATGAGGACACAAAAAGAGTG
ACAGCTAACCAACCAAGGTGGTCTGGAGAGGCTTCTGGGAGACTGATTTAGACTTAAG
TGTTATGGACTAAGTAAGAGCTACCTGAGTGAAGAAGGAGGAAAGGAGACTCCATACAG
AAGAGCTGAGGAATGAGGAGTGTCTAGGGTAGTCATGGTTTCTTTTTTTTTTATGA

Sequence 2945

CCCTTNCGAGCGGCCGCCCGGGCAGGTACCAGTGATTACCTGCCCCCTCTACCCTGGGCC
TGCCCCATCCCCCACTTAAGAACTACAACTAACTACTGATGAAAAATTTATATATGT
TGATACTGAAAGANTCCCTGTAGAGGAATAGCAACTGGATANGTAAGCNACTGCAGAAAA
AAAGGTGGGNAAAATTTGNTTAGGGCATATCCTTTANNTTTAACTTGAACTTTCTTCCN
ACNACCNAATTTATAGNACCCCAAGGNACCTTTGGCTTAACCTGCACNCTTAATGGTTNT
NCAAAATTAAGGNGGAAAACCAAGGTTNGGCATTAATTGGTTTTTACNAAAAATTT

TABLE 1A

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TTAAAAAATTTGGGGGNATATGNAACCAACNANAATTGGTNANCTTAANATAACNNACC
NAAATTNGNTTGGGNGGAAAATTCNCCNTNGAAAATTTTGGGGTAATACCCCTTTGGGGG
AAACCCANNGAAAAAAGGGGAACCAACNTTTCNAACCAAAAAAAGNNTTTGGGG
GAAAAANAACCTTTTGGGGNTTAAAAAAAT

Sequence 2946

CCCTTTGAGCGGCCCGCCGGGCAGGTACTATCTTTTATTTAGATATGCTGAGATAATTAC
AGATGAAATGTTTTGGGGTTTTTTTCTACATAATCTGTTGTAATAACTGGTGGGAGAA
AGTGGGTGTATAAACACATTGCTGCAATTAAGTGATGGAGACATGAGTGTCATTGCACT
ACAATTACATTTTATTGAAAATTTCTCACTCAAATTTATGGAATAGGTATCTGTTAGAA
ACTATTGATCATTCTCTCTAAATTTGAAAAAGAAGCTGTATTTGACTCTTATGTCCCAA
TAAACTTAAAAATGCTGCCCGAGAATTGTTTGGTGTGAAAAAAGGAACTACAAAG
TCTTT

Sequence 2947

CCCTTTGAGCGGCCCGCCGGGCAGGTACTACCCAAACCTAAATTTAGAAACAGGATTA
GAAAAATATCATTCTTCTTCTTGGCTATAAATTTACCCATCAAAGTTAAATTTAATT
ATACATTCTTAATAGTCTTGGATAGACAGGGCTTCACAGATAAATTGTAATTTAAGCAAG
AATTATTTTTCTGTTTAAACCCTAAACACAATAATGTGGTCTTACTAGCTCATCTCAA
TTGAATATCATGCCCTAGTATTTGGGCTTTATATAATTTAGTGTGTATTAATTTCTGC
TCCTGAGCTCTTATAAATGAACTGCTGGGAGCTGTGCACAAGGCTTAACTAAAGAAAC
CTCTTAAAGACAGTGTGGATATCACTGAAAAGTATTTTGGGGGAAACTAAATTTAATGT
AAAAGAGAACAACCTTTAGAAAGAAGAGAACCATAAAAATAAAATGCAGCACTCCTTTGA
CTTTGNCTAATTCCTTGNCTCTTCTGGGTGGAATTCGTAGTCAATGNGGTTTAAAAAT
ACATCAGCACCTTTGCTCTNCCTATAATGGAAAAATTTAAATTTAAACAAAA

Sequence 2948

CCCTTAGCGTGGTCGCGGCCGAGGTACTTGTTTTGGCCACAGGAATCTTAAGTGACTT
AATTAACAGGTGAGTGGCATTGCTCCTGAACAGAGCTACCTAGTTATAATCTGTGTTACC
TTTGCTTTAAATGTTCTTTACTCCATTTCTTAGTTGATATGCTTGAGGCATCTTGT
TGAATCCATCATTTATTCACCCACTCATTCAATTCACATGTATTTGCAGTTGCAAAGCAG
GCAGTAGGAATAAAATTAGGATCAAAATAAGGTAGTAAGTAACGAAATTTGCTGAGTATG
TTCTGAGAGAATAGCTGAATATACATTTCTAAATGGACGACAAATCCATTTGGAAGTCTT
TCTCCTCCTGTTATTTTGGTAA

Sequence 2949

CCCTTAGCGTGGTCGCGGCCGAGGTACCGTAAATGGAAATTATCCCGCAAATTACGGCAT
CTCCAAATGTAGCGTGGAACCTAATATTGACATGTCAACACAGGATTAATACATAGTAAT
CAAAGAGTGCTTAAAAATTCATTAATAATGAAGTCCACCTCTAAAAGTGAAATGTGCAA
ATTAAGTAGCAGTTAGATAATGTTTTGTCATTTAGGTAAAAATTACAAAAGAATCGGCC
GGGCGCGGTGGCTCACGCCTGTAATCCAGCACTCTGGGAGGCCGAGGCCGGCAGATCAC
CTGANGTCANGAGTTCAAGACCAGCCTGGCCATGGTGAAACCCCGTCTCTACTAAATATA
CCANGAAATTAGTTGGGGCCGTGGTG

Sequence 2950

CCCTTAGCGTGGTCGCGGCCGANGTACANCAAGATAAGTGACCTACTGAGGGACAGAGTT
CAAAATAAAATAGGTTTCAGTCACTCAATGAAGTGCTTTGCTGGGAGATCTCGCCTGGTC
CTGTGGTCTTTAGTGAAATATGGGGAACACAGCAGGGGACGTAGGTCAGATAGTTTATA
ATGGTGAGTTATAGGTTGTATATTATAAGGAGCATTTCTCAGCACTGAAGAAATTTCACT
AGATTCAGCTCACCTTTCCAACTATTAAAAGCAAAACGGGACTGTTTTCAAAAATTG
GAAAGTAAACCTGGCTTCTGTTAGAAATTTGGAAAATATTGAGAAGTTTTAGACCCAGT
CCCTTTAACCTTAAGGAGCTCACATGCAATAAGATGGAAGGGCAGGGGAGATCANGACAG
AAAACACCGATATGGCCGTGAGAACATGGAAGCTTATATCAAGTGAATTCCTTTGAA
TTTACCTTTTTATAATCTTTTAAAAACAAATTTGACTTTAAAAAAGCCCCAATTTTAA
TCGGAAATGCTAATTAGCACCTTTAAAGTTAGATGAAACATATCAGTGGAATCAAAGCCT
ACGCCTCAAATGGATGTATTTAATGGTTT

TABLE 1A

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Sequence 2951

CCCTTAGCGTGGTCGCGGCCGAGGTNCAAACATTAAGTGTGTAATTCAATGAGTTTTGAC
AAATAATGCAGTTTTGTAAAACTTTGGTGAAATTGGAAAATAACCGCACCCAGTCACC
TTGTTTTTTTGGCTACTACTAAATTGACTCTGATCACATGGAAGTGAATAATTTTCTTT
AGTGTGAATGCCCTGAGCCATGAGGTAACCCTGTTCTGAAGTGGTTTCCTTGCTGTAA
TAAATAATGTTGACATGTAAAGCAGGACCACCAAAGTGAAGTCTGTAGTAATTTAAT
GTATTTTCCACTCTGGACAAAAAGATGTGTCTTTATTCCTGATAAATATTAATAGTTCTA
GAAGAGGACATTTTCCAAATTAAGAATTAGGTATTTNTTCATAATTCCCGGGTAGTA

Sequence 2952

CCCTTAGCGTGGTCGCGGCCGAGGTACAAATTTATTAAGCTCTAGGTTTCATCAGATGACC
AGGAAAACATAGACTATCANGACACANACAAAGCAGAACTGCAGAATTATAGAAAATTCA
AGGTCTCATGGAGGAAAAGCAGTATCTACAATAAGAAAGAGACCCCAAACAGCACTCTAG
ATTTCTTTAAGAGGGATTATATTTCCCTCCTTCCCTCCATTCTCCCTTCATTTCTTCTAC
CTCCCTCTTTTCATCCTCTTCTCCTTTTATCTTTTCATCATTCTTTCTTAAGCATTTTA
CTTAGTTACTACTATG

Sequence 2953

CCCTTAGCGTGGTCGCGGCCGAGGTACAAGCCGTGTCTAAGGAGCTGGTTGGAGAGTTTT
TGCAATTTGTTCAACTTGATAAAGAGGCCTCTGATCCTTTCAGCCTAAATGAATTACGAG
ATGAATTATCAAGGAAACAGAAAGAAGAAATTATGGCAAAGGCTGAAGAATTTATTGACAG
ATGTGTTGTTAGAAAGCCAGTGGATGGGTGGCAGGTAGTGAAGCCCAGGGTGAAGACA
ATATGGAACCGAACATGGCTCAAAAATGAGAAAAAGCATAGAAATAATTTATGCAATTA
CATCTGTGATTCTTGCTTCTGTGTCTGTAATAATGAAAGTGAGAACTACGAAGCCCTAC
TGGAATGTGTTATTATATTAAATGGTATTTTATATGCA

Sequence 2954

CCCTTAGCGTGGTCGCGGCCGAGGTACAACGTGGGCAAGCATCTGTGCATATGAAATGCT
GTTTTTCTAAAAGATTTCTCACATTGGCAAAGTGAAGATTTTCTTCTGGAACACAGGAA
AGATTATATTAATGCTNATAGCCATACCATGTCTGAATATGGGAGGATGACAGACACNGA
ACGAGACCAGATAGACCAGGATGCCAGATATTCATGAGGACCTGTTTCAGAAGCAAAGGG

Sequence 2955

CCCTTGAGCGGCCGCCCGGGCAGGTCCGGGCAGGTACACTGCATAAAGCCAGAGTTAAAA
CTTCACTGCCAGCCTCTGAACAGAAGGCTGTTCTATCCACACTATCACAAGACCTGGTGG
AGTTGAGGCAACTGCTGAATTACCATACAGGGAAGAATGAATTCAGAAAATTTCCCATGC
AAGATAGGCTCTTAAAAAATAAATTTACACAAGAAAATCAGCACTGTAAAGGTAATTGAT
AAGCCCAATAGAAGGGAAACCTATACAAAGAAATAGAAATAACTAAGCAATCTGAAATGG
ACTTTAAATAATGATGTTTACAATTCTCTAAGAGGAAAAGGAGCATTAGCATCAGTGAAA
CAAAAGTAGGGCTATAGAAAAACAATACTTATGAAAAAACAATTGGAAATTTTATAGA
TGGAAAAGCGCGAAGTAAAAAATTCACCCCATGGTCTAAAAGAATAAACTGCACCCAG
CTGGAANGGGAAAATTANTTAATTTTACGAAGAAACCAATTAATCTTACCAGAATGTA
AAGGAGATAAAGATNTTTTAAATAAATCNGGAGTTTAGGAGATNTAACTTTTTTCCATA
TGGAGTNTTTTAAATATCCATATGGTTATTATGTATTCCATATATATCCCNAAAGGGGAA
AGGG

Sequence 2956

CCCTTAGCGTGGTCGCGGCCGAGGTACAACTATTCTCTTTCTATTGCATTTTCCCTTG
AGAACATGAACTGACAAGGAACAAGGTGAAGGAGTTTGAAGTGGACTTTAGGGATAATATA
ACTCCCTTAAAAGAAGTGTTAAATGAAGGAGAGATTTTACAAATGGCAAGTAGCATAAA
AAATGGGAATTGTAAAGAATTAGTATAGATGATTTTGAAGTGGGAACTTAAACACTAA
TTACTTTTCAAGAAAGATTTGAGATGATTTTCTTTAGTAGGGGTGATAGTGGTAAGGCCCT
TCTATGAAGTATGTGATGGATTGGACTACTTCTGAGAGCCCTTTCTTCTTAAATCTT
ACGGTAAAAGTTTTTGAAGAATCATATTTCAAGAACTTTTTTCTTCTTCCACATTAGCCA
TCTTCAGATAATAAGAAACCAGATACCTA

Sequence 2957

TABLE 1A

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CCCTTTCGAGCGGCCGCCCGGGCAGGTACGCGGGGATGGCTGGATTTTTTCTTTTACTT
TAAGAAGTCTGTCTTTAACTGACTACATTATTTATGAAATAGAATTCTAGTATATTT
TGACTCAGTTTTCCCAACTTATTTCTGATTTTCTTTTACTGCATCCACTTTTTAACTGG
CATCAACCCCTTCTTTGGGTTGGTTGTGTTTTACGCACCTCCTCCTTTTTCTCACT
CCACTGGTTTGCAAGTTATACATTTGATTTCTTTCTTTTCAGTGCCATGCTCTGATAAAA
TAAAGGACATTTATTACAGAAAA

Sequence 2958

CCCTTAGCGTGGTCGCGGCCGAGGTACACAAGTCACGATTATACAGTTTAATGAGTAAAC
ACTGATCACACCCATATAAACCCTGCCAGGCCAATAAGTAAAATCTTACAAGCAACCCC
AAAAAACTCTAGGCCTCTACCTTTAGAATGCGTTTGCAGTATTTAGGACTATTGTAGTT
CCAAAATTACTAAAAGTAATGAATCATTAAATGTATGTATTACATGTTAGAAATTTAT
TTATTTTTTGAAGCATGCATGTTTATCATTCTTAATATACTTTCTCCTGTTTAATCTCT
TATAAACCTTAAACTGTAGTGACTNNTAGGAGAGTGAAATTCATGAATATAAAGGTAGTC
CATAAAACCGTGATTTGTAGATTTTAAATCTGAAAAACATTCTCATATGCACCATAAATT
TTGTCAGTGTTCTATTTGATTTGCNTATCTCTACAGGTGAATGAATTTGTTNNTTTGAA
GAGGATGGGGGAAGCNTTTNCCATTTTAAACAGGGATAAAAACTGAGGGAAANTGA

Sequence 2959

CCCTTAGCGTGGTCGCGGCCGAGGTACAAATTTATTAAGCTCTAGGTTTCATCAGATGACC
AGGAAAACATAGACTATCAGGACACAGACAAAGCAGAAGTGCAGAATTATAGAAAATTCA
AGGTCTCATGGAGGAAAAGCAGTATCTACAATAAGAAAGAGACCCCAAACAGCACTCTAG
ATTTCTTTAAGAGGGATTATATTTCTCCTTCTCCTCCCATTTCTCCCTTCATTTCTTCTAC
CTCCCTCTTTTCTCCTCTTCTCCTTTTATCTTTTCATCATTCTTTCTTAAGCATTTTA
CTTAGTACTACTATGTT

Sequence 2960

CCCTTAGCGTGGTCGCGGCCGAGGTACAAATTTGCTTGAGTCTGAAGAACCTGCTANGGA
GCATATACATCTTCAATTAACCTACAACCTGGTCTTCAGTAAACCTCTGTCCCTGNCACA
CTGAATNTGGTGTAAGTCATTTTAAACTTCTGGCCAAAACCCAAACCATAATATGCTTT
CTTGTAAGCCANCTTCATATACCTAAAGAAAACATGTGAAAGGCCGGGCACCGATGGCTC
ACTCCTGTAATCCCAGCACTTTGGGAAGACGAGGGGG

Sequence 2961

CCCTTAGCGTGGTCGCGGCCGAGGTACCACTGATGTCGTATGGTGGCAAGTCAGTGTT
GGCCCTGTCTAACCACAGGGAAGGGGTTCTCTACAGAAAAGTAGAGTTTAGATCTGAGA
AGGTAGTTGAGAATGAGTGCCGTATAGTGAATAATAGTAGATTTTTACCCATTTTACCC
CTTTGTCTTTGGTTGTATATATATTACATACCATTCTAATTATACATATAGTTTCAAAA
ATGCCTCTGCTTCTCAAACACAACCTATACTTTATATATATTTTCAAAAACAGTTCTACC
TCCTTCTTCAAAGATAAATATCTGTGTTTTGTGTCCTCCATGGCCACCCCTAAGAGAGG
TGCAAGGAGGATTTATTCTGGAATTACCTACTTTAATAGCCT

Sequence 2962

CCCTTAGCGTGGTCGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTGGAGATGGA
GTCTCCCTCTATCGCCAGGCTGGAGTGACAGTAGCACAGTCTCGGCTGCCAGGCCTCCCC
AATCTCTTCTCTACAGGGCAGGGCTGAACAGTATCTCCTCCTGGCTGCATCCGAGCCC
ANAAGTCAAAACCTAAGGGGTCCCTGCTTGGCTGGGACAGAGGCCGACANACCTAGGTCCA
GCTNTGACTCGACAGNGGCACATCCCTGTGAAGTAGGGCTTGGGGGCTTCCCATGAACAG
CTTTCANAGTGAGTGACAGTAGAGTGGGGCTGGAGGACAGTTTTGACAGATCTTGAGCAGG
TGCTTGAATTTTAAACCAACATCCACCCTTACCCATGACCCAGGTGACATTTAGAGGAG
GGTTCACCTGCCCTGCAAAGTAAGAGCTGCAAAATCA

Sequence 2963

CCCTTAGCGTGGTCGCGGCCGAGGTACCAATGAGGAAGAGAGTTTTGTAAAAGCAAGCAG
GCTGGCTGTCATTAAGTTATCTTAAATAACTTGTGCGCAGCCCACTCCACCAAGTCCTG
AAAATAGTTCATTCAAGTGGTAAACAAGACAAGGCAGAGGACGATGTCTCTAACTTCCC
TGATGTGAGATCTAAAGCCCCATTCTAACTCTTGGTTTTAGAATTGAGGAAAGTGAAT

TABLE 1A
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AAATGCATTTGGAAAGGATCTGTTNTCTTCCCAGGTTTCCTGCCTGGGTTGAAAATAAAG
GGTTCAGGGGATGGAAACAACCTTTGAGGAACATAAAGAGGTATTGGGGGTTTCATCAATTG
ATCTTTGTTTCAAGATGGGTCCCCCCCACCCTCCNCAATGCAAGTTAATTAGGGAGATAA
TTTTAGCCTACCTTTGGGAATTNATNTNTAAANATAAAGTTATCTTTTTTAANGCTTG
TCACTTTAATTGNCCNCCCCTGNATTTGATAANGAAAAGTAGTTTTTTCTTATTTGACC
NCTNTTTTNGANTGNCTATTNGGAANNCTTTTATTTTGGGNACTTTTTTGGGGGGTGGG
AAAGGAAAGTTAAATT

Sequence 2964

CCCTTAGCGTGGTCGCGGCCGAGGTACAAAGAAGCTGAGTGATTTGTTGAGGTCCCAGTG
GAGTGTCAGACCTAAACTTCCAGTTTCCCAATTACTTAAATAAGGTTCTTCTCATCAGAC
CCTCTTTCCTCATCTCTCTACTAAAAACTACAGTGAATAACTTCCACTGTCATCAAATA
GAAACTTTCTGTGCTGGTTTCCCCTACCCACCTTTCTGTGCTTGATAACAGAAGCTGTT
GGGAGCCCCACCTTCAGTCTTATTTGTCCTTCCTTGCGNGTTTTTCTTTG

Sequence 2965

CCCTTGGCCGCCCGGCGGAGGTACAATAATGGGATTGTGGTTATAAGGGAGAATGCCTCTA
TTCTTCAGAGAGGCACACAGATTTACTTGCTTTTAAATGGTCTAGCAAAAATAAAAAACA
ATCCACTCATAAACTAATATGACAAAGTAGATGGTTCTATAGGTGTTCAATGCATCATC
CTTTCAATTTTCTAAATATTTGAAATTTTCTTAATAAAAAGATAGGGAAACAAAGGTGGC
TTGGAGGAAACAAAAACAAAAACAAAGATCCAGTCTAATGGAAAGATGCAATG
GACTCAGGGATCCTGCAGCCAAAG

Sequence 2966

CCCTTAGCGTGGTCGCGGCCGAGGTACTGTTGTTCCAGACTGTATGATTGAAATAGCTGT
TATTTTCCCAGTTTCTGTAGATCACATATAGGAAGTTCTGCATAATCATAGTGATGAAAA
CTCATGTTTAAAAAATCCATATATAATTAGCGTGATACAACACAGCATCTTAACACTGAG
GCTTTAAGTTTAAATAATTCTGTTATTCTCAGTAACACTGAAAGTTGCCTGTGCTCTTTC
TGTCACACAATTGATTCCAATGTATTTTAAATGTGTTTTTCTGAGTCATTTGTTGCCTT
GTTACTTTTTTAAA

Sequence 2967

GGNACTTAGCTGGGAATCTGCATCTTTAGAGNTCAAACTGTGCAGTTTTTCTCTGATT
AGGTATTATNATGTTGAACTCCAAAGGGTCATTTACATTCCTTTATAACACTGGAGCTCT
GGTGATCGAATTGNGTTATGAGATAAGCCACTNGCAGGGACTTGAACATTCCATTTCT
TTAGATTTTGTNGTATCAGCATGTGAATATGCTGAATACAACCTTGATCCTAAAGCATAC
AANCTATAACATTTTCACGTTGGACTCAAATTC

Sequence 2968

CCCTTAGCGTGGTCGCGGCCGAGGTACCTGGAAGGCCCCACTGTTACTTCTTCATACAGG
CAAAAGCTAATCAACTATTTACCTTGCAGCTAAGTCAGGACAGAGTGACTTGGAGAAGT
GCAGATGAACTCCCGTGGCTTTTTCAGCAGCAGGGAAGTAAACAGAAGCTGCATGATTGC
CTTCTTAATCTCTTTGTGTCTCAAAACCTTTATAAAAGGGGACACTTTGCTGAGTTGCTG
AGTTATTGGCAGTTTGTGGCAAAGACAAAAGTGCAATGGCAACAGAATACTTCGATTCA
TTGAAGCAGTATGAGAAAACTGCGAAGGCGAGGACAACATGAGTTGCTTAGCTGATCTT
TATGAAACCTTGGGGCGATTTCTCAAGGATCTAGGCCCTTCTCAGTCAGGTAAGCTCAGCA
GATCAATGGCAAGCCAGAGACAGGTGGGATTTTTGTGTTCACTCTTCTTTTTTCCAAGA
TGTTAATGTGGTTTTCATTTGTTGTGCTATAATCCTTAATATTTAATCAGATGACAGATC
TTGCAGCATTTCACTCACTTTAACTGGCCTTTACCCCTTT

Sequence 2969

CCCTTCGACGGCCGCCGGGCGAGGTACTTGAGTCTCTTAACCTCTGTAAAATCAAAACCTAA
AGAAAACAAAAAGATTATCCCTTGCATTCTGAATACTGTTTAGTCAGTGTATATCAATTTT
TTTTACTGTATCACTGCATTGAGAGGTATCAAATTTTGCTTGCAGCGCTGTAAAAGTTT
ACCAAGTCAGATTTGTGGGCCCGGCATGGTGGCTCACACCTGTAATCCAGCACTTTGAGA
GGCCAAGGCGGGAGGATTGCTTGAGGCTGAAAGTTTGAGACCAGCCTGGGCGACATGATG
AAACTCCATCTCTACTAAAAACACAAAATTGGCCAGGCTTGGTGCCATGCACCCGTGGT

TABLE 1A
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CTCAGCTACTTGGGAGGTTGAGTGGGGAGGATCGTTTGAGCCCAGGAGATTGAGGCTTCA
GTGAG

Sequence 2970

CCCTTTGAGCGGCCCGCCCGGGCAGGTACTTGTGTTGTTTGAATGGTATTTTGAAAGCAA
TTGCATAGTTACTATTGATTCCTCAAAATGCATAATGGGGATGCTTCTGACCGACTTGCC
TTTTAGCAAGTTGAAGGTAGGTATGCACGACAGGGCTCTGACTTCACCAGAACTAATAAG
TTAGATTGCAATAGTAGGAGACAGATATAAATAATGAAGGAAGCTAGAGTTATGACGGCT
TTCTGGAAAAATGTTGGAATTGAAAGAAAAATGTGGAAGAGAGTTGAGTGGAAGAAAGAC
TAATAGAGTAGGAGTATTAGTTTTATGAGAATGTGAGTAAATCTAATATTGGATAAATGA
ATCTAAGGCTACTAATACTACATTTTTGCACTTACATTTTTGAGTATTTGGGTAGTAA
TCACTCCGATAAAAACTTTTAGAGTGGTTCACCTCTCAGTCAATATTTTGTGGTTTTAT
CTACATATACTTGGTTTTTAAGTCCAAAAATATTGGTTGGATTCTGGTATACCCTACNT
TTGTA AAAAGCATAAACTAGCATTTAAATTAATCNAATTAATTGCATGTTATTTTTTT
TTTTAAAGCCATTTTCTGGNGATATATGGCTTTTGAATTTTA

Sequence 2971

CCCTTAGCGGCCCGCCCGGGCAGGTACGTGTCTGTGGTCCCGACTACTGGGGAGGCCAAGG
TGGGAGAATTGCTTACGACCAGGAGTTTGAGTCCAGCCTGGGCAACATAGCAACACCCCA
TATCTTATTTAAAAAAGCACTCTATGTTTGTGTTGGGCCTCTTTGAGAACATTTACTA
TGAAATTTTATTTATCTTTGTTTCCTTTCAGTTCCTTTGTTTATTGTGATTATCTTT
CATATACAATGTGCTTAAATAGCTGGTGGTCTTGATAGGTCACTCAACAAGTGAGCAA
ACTGATGGATCCTGTGTTTTGTGAGCAGTGTTTATTGGCTGTGATAGAGGGTGGGGACCT
AGATGCTTTTAGGGGATCCTCCTGTTATCCATTTCTG

Sequence 2972

CCCTTTGAGCGGCCCGCCCGGGCAGGTACTGGAAGAATGAGATAATTTATTTGGCAAAAT
TCATATGTATATGTTATGCCAAACACTTGGCTAATATCTGGATGAGATGGGCAATTTACA
GACTATGTAATCACTAGGGTTCTATCTGTAGTTGTGTTATGAGAAACAATGGTTCATTA
ATTCACGGAAATGTGAATTAATAATGTCAATTAAGCGAAAGACTCTGTTAGCTTGAATTCC
TATTGGGATATGCAAGACACATAACATTTATGCATATTTGTGATGTTCTAATCCATTTTT
AGGGAATAGGATATTATATAAAGCACCCCTAGTTTAAACAAATACATGATTACGGTTGTCA
ATAGAGATAGATATAAATAGTGACCTGTGTAATTTTGTCTAATGCTGAAATTTTTTTT
CAGACAAGTGGATCCAAATCTACCAATGATCTTGCATTACATTAAGGGGAAAAAGTATCT
CCTTAATGGGGAATCTTACTTTTTTTTTTCCAAATTGTGCCTATCACATGATCTTATGG
ATAGATAATGGTTGGTATTCTCTGGTGGATTCTATGNGCAAAAAAAGAGAACTTGATAC
ATTGGTTAGTTACATTGCTCTCTTTCTGNGCATCAAGCTTCAACTATCAAGATTTCTAAG
TGGCAAAAAAGTTTGGGGGCTGNGTTATAGAAGTGGAATAAAATNTTACTGNACATCATT
CTTTTAATTAATAATCCCN

Sequence 2973

CCCTTTGAGCGGCCCGCCCGGGCAGGTACAACAGCTTCCTAACTGGTGTCTCCCTTCCTC
TNAGCCNTGCTGTGCATCATTCTCGCACCTGCAGAGAGTTATGTCTTCACAATGCAATT
TTGGTGTTACCCCTTAACCTAAAACTTCCAGTGCACCTAGGACAAAATCCAATATTCTT
AAGCCCCCAAAGACTCTTCATGATCTGACCCTATCTTGCTTTCAACATTCATCCCCTCCA
ATGTTCTCTCTCAGGTTCTAAGCTTCCACAAATTGCTACATCTGCAAAGATTACTGCC
CCAGCCTTACTCCATCTTCTTTACCTAAATCAATCTACTCAGTTTTCAATTCATTCTTGG
ATTAACTTCAAGTTCTTTAGGGGAAGCCCTT

Sequence 2974

CCCTTTGAGCGGCCCGCCCGGGCAGGTACTGATCATTCAATGAGAGAATATGTCAAAAAA
TAGTTGGTGCATAGTAGATGCTCAAGAAATGTCAAATTCTCCTGCCTTTTCACTTAGATT
CTTAAAGTATGAATGGTTTCATATCCTCATTGACAAAGTATTTCTCTGAAAAATTCTAA
GAATAAAAAATCCTACATCTCTGAATAATTACATTCATGACTCAGGGTGAATTAAGCTT
CACTTTCCTGGAAAGACGCAAAAGAACTTGAAGACAAAAACAAGAAGCAGATCACAAG
ACATAAAGTATAGTG

TABLE 1A
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Sequence 2975

CCCTTAGCGTGGTCGCGGCCGAGGTACACACTTCTGTAACCTTAATATGTCATTTGGATAC
CTTTTCTCAAGAAGACTCAAATAAATAATTTTATTATGCCTTAAATATTACCAAGTCAGA
ATACTCACAGATGGATACTCTGTCCAAATGAGTATTTGTGATTGCGCATTTACACACACA
TATAATTTGTCATTGGTAATTTTGTTCAGAAATTATTGTGAGAAAAATAATTTTAAAAG
AAAATACGATTCTATGAATACATTTTATATTTACCTTTTCTGGCACATACTGTTGCAT
CAAACCTGATTAATTAATGTAATTATGTTAAACTTCTCCAGTTAAAAAAGAGAATATACAC
TGCAAAGCTGAATGTGTATACTACTTGTGAA

Sequence 2976

CCCTTAGCGTGGTCGCGGCCGAGGTACTTAAAGAGCTCGTGGTGTGTGCCAGGAGTGTGT
TTTCCATGCATTCTTCTGAGAAGTAGGTTTGATTATACAGTATCTATTTTACAGATAAA
GGTTGAGGTCTTTTCTTCTAAGGTGTTATTAGACAGCTATAGACATGGACACCAAACT
NGNCGAGCCTNCGGCATTGTAAAGGCTTGGCTTACCTTCCATCACCCCTCAGCAGTTCTGC
TGGAAGGGAAAAATGGAACAGGGCCCTTAATTTTTTCTCATTATTGGATTAATTGGAAG
CACTAGGCATGGTNTGCTT

Sequence 2977

CCCTTTCGAGCGGCCGCCCGGCGCAGGTACATTTAAAAGGTGATGCTAATACTTTAAAATG
TTTAAGATATAGATTTAAAAAGCATTGTAAATTGTATACTGCAGTGTCTGCTACATGGCA
TTGGACAGGACATAATGTAAACATAAAAGTGCAATTGTTACACTTACATATGATAGTGA
ATGGCAACGTGACCAATTTTTGTCTCAAGTTAAAATACCAAAACTATTACAGTGTCTAC
TGGATTTATGTCTATATGACAAATCTTGATACTGCATCCACAACATTACTGGCGTGCTTT
TTGCTTTGCTTTTGTGTGCTTTTGTGTGTCTGCCTATTAATACGTCCGCTACTTTTGTCT
GTGTCTACATACACATCATTAACTATTGGTATTACTATTGTGGATAACAGCAGCCTCT
GCGTTTAGGTGTTTTATTGGATATATTGGATTTGNTTATATACCATTATTT

Sequence 2978

CCCTTAGCGTGGTCGCGGCCGAGGTACATAACACATTTATGTGTCTATGTGTATATACTA
TTTATGTAAACATATAATATATGCAAAACATATATGCATATACACATACCGATATATGCA
AATCTGTATATAGAAAACTTAGTTTACTCAAGATTATTAATAATTGATCCTGGGAACAAA
ACAATACACCTTTTCTAGGCATTTATCCCTACTATAGAGACAGAGAAAGAAAGATTGTGA
GAGGGAGACACACAATTGAGATGAGCCTTCAGGGAATTGTATGAACTTTTGAACCAGAG
ATGGAGAAGCCAGAGCCCAGCCTGTTCCCACTTTAATAAACATTTTTTTCTTCAATTAAT
TAAGGTTTGGGAAAGAAAAAAAACCCCCAGAAAGAGAAAGTAATTTAACATGCCATGCAT
ACTTTACAGATGGATCCTCCNTCNGATGCCTATTAATCTATGCATGATTGCNCTGGAAA
AAATTAATTGCATTTGGTTCTCACTATTGGGAAAAATAGGGTGCCAACAGCTCAAAAATAA
AAANGGAAAATGAAACCANGGTGNTGNTGGTGGTTTA

Sequence 2979

ACGCGGGCTCCAATTTAATCTTTTAGTTGAATGAGCTTCTTCTCGCTTGTTACAGACT
CACTTAGGGCTCATTCCCTCCCTGCCTTAGTCCCAGTATGGTCTCAGTAATGACATGCAGT
ATGGGGACTTTGGACTCCTGTTTGAACAAACCAGCTTTGAGATGATAAAAAATTTGAATAT
GAATTGAGTTCTTGAAGATAAGAAATTGTTAATTTTGTGAGGTTTGTAAATGGCATGGTA
GTTACTCTAAAAACAAATTTCTGGGCGAGTGTAGTGCTCATGCCTGCAATCCTAGTACC
TCGGCCGCGACCAACCGCTAAGGGCGAATTCC

Sequence 2980

CCCGCGTCCGCTTTCTTATTTGAAAGAAAACAACACTCACCACGGCATTACAAATGCTG
GGGACCTTATGAATGGGAATGGAGAGGCTGCACTAATGTAAGTGGGGTCAACATCCCTGC
TGGAGGGCAGATGCAAGTGGGGTCAACATCCCTGCTGGAGGGCAGATGCAATTTTGGCAA
ACTAATGACTTTTGAAGCCATTTTCTAGACTGCATTTTCTCTTCTTTCTTAGAATGCT
TTTCTCAAGGGGAAAAAGAAAGCAGAGGTGTAAATGGTATCTGGCCGTTTGAAGAGCCCCG
TCTGGGAGACTCTCTGCTGACCACAGCACTGTCTCTCCCCAGGGGCCAGTCCCACAGTGT
CACTGAGTCCAGAGTCGGGACTCCAACAAGCCCTCCGCATTCCAGCATGACTGTGGTAA
AACAAAAAAATCTATTTTATTCTAGTCCATCACATTTTCTATTTTGCTAAAGAAATCT

TABLE 1A
19/599

CNATCACTCCATAAATGATCGGTTAAAAATNAAAAATATAGGCTGGGTACAGCAGCTTATG
CCCTGTAATCCCATGCTTTGGGACACTGAGGCTGGAAGATCACTTTGAGGCCANGAGTTC
NAGACCAGCCTGGGCAACATAAAAAAGACCCATNTTTTCCAAAATTAAAAATAATTNGCT
GGGGGGAGCCTAATCCACTACTTGGGAAGCTGAAGGCTGGAGGATTGCTTGACCCCTGGG
AGTGAGANGCTACANTGAGCTTTTATTGCCCACTGCNCTTCANCTTTGGCCAACAAAAT
GANAACCCNTNTCCGTAAAAAATCNCNCNNNTCAAAAANTTTTAAAAAAAAAAAAAAAAAA

Sequence 2981

CCCTTAGCGTGGTCGCGGCCGAGGTACAATAATCGTTTTTGAATGATGGAGTAAATGGT
GGATTTTCATGCCTCAACTTGAATACACTCTCTGGTGGCTGAAACCGAGGAAGAATGTTGC
TCCAAAATATTAACGGGTGATAACTTGCTTTTCTATTTTAAAAATAGAAAAATTAATTCTC
CCATTCTCTTGCATGGAAGAACCCTCAAACGGAAATTATTTGTATTAGTCACTATT
TAGTTATTAATTTTTTCCAAAATTAAGGCTCATGCTCAGAAGCTATTTTTCTTAATATGTT
TGAGTTTTTAAAAATTGGAATAATATCTCTTCCACCAAGAATTTGGCAAAGAAAGCTA
GAATTAACACCGCAATAATAAATTCACAACACTATGAAAAG

Sequence 2982

CCCTTAGCGTGGTCGCGGCCGAGGTACACTNACAGCCCTGTCCTGAGCCTGTGTTAAAGC
CGGCACTCTATTTTTCTGGTGTCTGTGCTGCTCACATGTCTGTCCCTCACTCCATGC
CCCACATCCCCTTGTTCCAGGGTCCGGCTCGCAGTCAGCACTTTTACCATGGGAATGCAT
GCCTTAGTTTAGCCACCTTCCCTGGGAAAAAGANCTGGATATACACACAACATACCCAT
GTCTCAATTGTCTGGTATGCAAGTGATATGACATATTTGTGTTAATAAATTTGNGNCTTA
TATGCATTTGTGTGCAGGCAGTCACTCAAACCTGGGACACTTTTGATCTAAATAAACTA
AGNGGATCCTTGACAATTGGCAAAGCCAGGACTGTCAGATAAATGGTCCCCTTGG

Sequence 2983

CCCTTAGCGTGGTCGCGGCCGAGGTACTAAAACTAGTAATGCAAAGGCAGCAATGTTAG
CAAAATTTAAAGAGTTATACCGGGGTGAGTTTTACAGAATTAGTAAGACCATTTAAAAGT
AATAAATCAACGTGTTGCGATTGGTGTATTGCTGCAATTTGGACTTACACCCAGTATAGCT
GACAGTATAAAACACTATTACAACAATATTGTTTATATTACACATTCAAAGTTTAGCA
TGTTTCATGGGGAATGGTTGTGTTACTATTAGTAAGATATAAATGTGGAAAAAATAGAGAA
ACAATTGAAAAATTGCTGTCTA

Sequence 2984

CCCTTTGAGCGGCCGCCCGGGCAGGTACGCGGGGAGCGCGCCGGAAGAAAAACCAGCAA
GAAGGCGGCGGGGGAAGATGGCGGTCTGGGGTAGAGTTTGCAAGCTTTCTGACTAGGCT
AGTCGAGCAACTATTCGGGTCTGGCGTCAAACCTCACTAAGTCTTTCCTGGCAGATGCC
GGCTATGGCGAACAGGAACTGGATGCCAATCTGCCCTTATGGAATTGGACAAAGGCCTA
AGATCTGGCAAACCTTGGTGAACAGTGTGAAGCAGTTGTTGCTTTCCAGACTTTTTTCAG
AAGTATCCATTCCCTATTCTTATCAATTCTGCATTCTAAAGTTAGCTGATATTTTCAGA
GTTGGAAATAATTTCTGAGGCTATGTGTTCTTAAAGTTACCCAACAAAGTGAGAAACAT
TTGGAGAAGATTCTAAATGTGGATGAATTTGNGAAGAGAATTTTTCTGGGATTCATAGT
AATGATCCTGTGGCAAGAGCCATCACCTCCGGAT

Sequence 2985

CCCTTTGAGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTGGTGGACT
CAGGGTCTTACTCTGTACCCAGGCTGGAGTGCAGTGGTGAATCTCAGTTTAAACCCCC
AAGTCTGTGGTATTTTGTATAGTCCCCCTGGAAATTAATACAGGATTCATGGTCTGCCA
AAGTCTCATTCCCTGCTCANACCGACAATGGATAGTGGGATCCTTTGTGATATGTGCTCT
GTGAGTTANAAGTAGTAACTTANAGCTGTTGAGGACAATACCTTTGCACCCCATCCACTG
AATTTTGTTTTCAAAGATACAGTCTGAAACTCCCAGAGGGTGAGTGCCTTTCCAGTGTGT
CAGAGCCATTAGCGGCTGAGCAGACCGCTGAGCATGTANATTTCTAGGTCAGGGCCCTCT
CCCCAAAGAATCATACTCCCTGGTTGAACTGAACCTAAATCAGGTTTAAACTAGACAGA
TGCCAACCAACTTAAATTCCAAAGATATNCAAGACCTGCCCATGGC

Sequence 2986

CCCTTAGCGTGGTCGCGGCCGAGGTACCAACAGCAGTGAACCAGGGCCTANTTGTGAGCA

TABLE 1A

20/599

ACCAANACCTNTGCTGACCCANAAGCANACAGGTGACCCTTTCACCAAACTTCAATCAT
CAGTCTTCTCTTTTCTTTTTTGAACANAGTCTTGCTCTGTCGCCCATGCTGGAGTGCA
GTGGCGCGATCTCNACTCACTGCAAGCTCTGCCTTCCAAGTTCACGCCATTCTCCTGCCT
CAGCCTCCCGAGTAACTGGGACTACAGGCGCCCGCCACCATGCCCGGCTAATTTTTTGT
TTTTTCATANANACATGGTTTCACCATGTTAGCCATGATGGTCTCGATCTCCTGACCTCG
TGATCCACATGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCACTGCGCCCG
GCTAGTTTTCTC

Sequence 2987

CCCTTTCGAGCGGCCGCCCGGGCAGGTACATTTAAAAGGTGATGCTAATACTTTAAAACG
TTTAAGATATAGATTTAAAAAGCATTGTAAATTGTATACTGCAGTGTGCTCTACATGGCA
TTGGACAGGACATAATGTAAACATAAAAGTGCAATTGTTACACTTACATATGATAGTGA
ATGGCAACGTGACCAATTTTTGTCTCAAGTTAAAATACCAAAACTATTACAGTGTCTAC
TGGATTTATGTCTATATGACAAATCTTGATACTGCATCCACAACATTATTGGCGTGCTTT
TTGCTTTGCTTTTGTGTGCTTTTGTGTGCTGCTTATTAATACGTCCGCTGCTTTTGTCT
GTGTCTACATACACATCATTAACTATTGGTATTACTATTGTGGATAACAGCAGCCTCT
GCGTTTAGGTGTTTTATTGNATATATTGGATTTGNTTATATACCATTATTTTAATACAT
ACACATGCACGCTTTT

Sequence 2988

GGTACAAGAGTTGGAAAAACAGAGTTGAAAGGAAAAATGAGGATAATCTTATTTAAAAGA
TTATTGAATGCCTAAGTGCCTTTAACTCCACAAGGACCCTCATGTAAACAAAATTCA
GCAATAGCAACAAAACAAAGCCTCTGAAATGCTCATTGTTCCCCAGTGAGATAAGCTTTA
AAGAGCANAAATACGAAAAACAAAACCAATNTCAAGTNAAACTTAAAAATGTTACTTTA
TGGGAGAGGACAGGCAAGGCGGCAAGAACATAGAAGCAGTGCCACCTGAAGCTGGCATGA
TAAGGTTGATTTAACTGCACTGGAAGTGACAGAATCTGAAAGAACGACTTTTCAAATGTN
AGATAAATCCATTTCAAANNATNGTTAACTTGTGAATTCAACAGAAAACTGTAAACT
TTCNGNGGAGGCTGTTAAGAGCAAAATTGTTCCCTCAGAGCANAGGACTCATTGATGCCG
AAGATAGAGGAACATGGCCAACCCAATTAATA

Sequence 2989

CCCTTAGCGTGGTTCGCGGCCGAGGTACAAAGAGAAGAACTCATGTCAATGGAAAGTCTGT
TTATCCTTAAAGCCACATTTGTAGACTAGACAGTTCCAAAATATCCCTTGGCAATCCCTT
TTGCAAAGTAATTGGAAAATGCTGTGCCAAGTGATAAAAAGCATTTCAGTTTCTGCCTA
ATGTCTGTTATAGTTTTCAAAGCCCTGAATTGCAAAACAAGATTAAACTAGTTCTGAAA
TAAACAACAAGTATTTACTGAAGAACAATATGAGGCACTCTGCTGGAACCTTGGGGATT
TGAAGATGTGTAAGACTGAGCTTACAATTTAGTTGGGGAGATCAGACGTGTGCACAGCCA
AGGTTAAGCTCTAATACAGCATGAAAATATCTGAAATGTCAAAAAACACCAGCAACTGTT
TCCATCTCANGGAGTGAGGCTACTATCCTCCAAAGGCAAGTCCTAGCCCCATCAAAA

Sequence 2990

CCCTTTCGAGCGGCCGCCCGGGCAGGTACATATACATTATGTAATTAAGCGTGTCATG
TGTATGTATTAATAATGGTATATAAACAATACAATATATACAATAAACACCTAAA
CGCAGAGGCTGCTGTTATCCACAATAGTAATACTAATAGTATTAATGATGTGTATGTAGA
CACAGACAAAAGCAGCGGACGTATTAATAGGCAGACACACAAAAGCACACAAAAGCAAAG
CAAAAAGCACGCCAGTAATGTTGTGGATGCAGTATCAAGATTTGTCATATAGACATAAAT
CCAGTAGACACTGTAATAGTTTTGGTATTTAACTTGAGACAAAAATTGGTCACGTTGC
CATTCACTATCATATGTAAGTGTAACAATTGCACTTTATGTTTTACATTATGTCCTGTC
CAATGCCATGTAGACGACACTGCAGTATACAATTTACAATGCTTTTTAAATCTATATCTT
AAACATTTTAAAGGATTAGTATCACCTT

Sequence 2991

CCCTTTCGAGCGGCCGCCCGGGCAGGTACCAGGACTGTCCTAGTGCGGGGAATAAAAGTG
AAATTATAGTCCTTTCTCCTGAAGAAATCAGGGTCTAGTGGAAGGAAGGTGGGACCGGA
AGGAAGCTGGCCGGTGGAGCTTGGCCCTGTGCTAAGCATTCTATCCACTTAACTGTGGG
TAATCGTCTGAAACTCCCTACAGACCTGGGAGTAAGCTATTGTATTGAAGGGGCTGTATG

TABLE 1A
21/599

GAGTCAGGGAGAGAAGCCAGGCTTTANAGTCAGATGGCTCTAATCGTGCATCTCACCCCTC
TCTGTGTCCCCAAGCTCTCCCTCTGTAAGATGGGGACAATGACAGCACCCACC

Sequence 2992

CCCTTAGCGTGGTCGCGGCCGAGGTACATTGTATACTGCAGTGTCTGTCTACATGGCATTG
GACAGGACATAATGTAAACATAAAAGTGCAATTGTTACACTTACATATGATAGTGAATG
GCAACGTGACCAATTTTTGTCTCAAGTTAAATACCAAAAACATTACAGTGTCTACTGG
ATTTATGTCTATATGACAAATCTTGATACTGCATCCACAACATTATTGGCGTGCTTTTTG
CTTTGCTTTTGTGTGCTTTTGTGTGTCTGCCTATTAATACGTCCGCTGCTTTTGTCTGTG
TCTACATACACATCAT

Sequence 2993

CCCTTTGAGCGCGCCGCCGCGGCGAGGTACTTTTCTCCAAGTCAATGAATCCAATCTTTAA
TGGATCTGGGATGCTCTCTGACCAGGTCTCTGTTATGAGTTTCCTGTGTTATAATTAATA
CCCCAACTGATTAAGCATGAGAGGATACTTCCTGCTCTCAGATAAATTATTTATTATAT
TCTGTATTATCCTTGTAATTTTTCTGGATATGAATAAATAACAATGTATCTCAGAAAAAC
ACATTTTGAAAAGCCTTATAAAGTTAAACTTTAAATGCTTTTCATCAAAATGTTATGAC
CAATAAAAAATGCCATTTCATGTATCTCATCACACTTTCTATACATTTTGTAGTGATATGTA
TTTATACATACTGCAGTTGGAAATAGGGAATGCTTTTTTGGTTTCCCACGGTAGGCTGCA
GGTTTTAAAGCAGAAGTCTGAACCTCTGAAGGCAACATAAGAAAAGTATTCATTTGAA
ACCTG

Sequence 2994

CCCTTAGCGTGGTCGCGGCCGAGGTACTTGTGTGGGTGTCTTACCTTGCATTAGAATATC
CTAGGCCTTTCTAATTCTTCTCTTGAATTCCTGTGTCACTCATCTGAGGTCATCTCTT
GGATTTAAATACATTTGGTCTGAAATCTCAAAGTCTGAATAAAATGCCATANTAAGTC
CAACTATATGGTTTCATGTAGGGTAAAGTAACCATTTGTGAAGGATTACGATAAACTGT
GTGACAATAAATAGAATAAAAGATGGCAAAACAATCTGTAAATTACAAAGTGTATAAAA
ATGCATTGAATTTCTAGTGTCTTACACTTTTCATATTTCTCATTGGCACATCAATCANAC
CTTGCCCTTCTAAAGTGGGAGGAAGAAAAAGGCTGCACCTGTCTGGGGCTGAAGGTCTGG
GCAGAAACACTAGCCAAAACCTTTTACTAAATCTTCATGTACCCCCCCCCAACTNATTAGG
GGCCCCAACTTATTTTATTATCTTCACTATCCCCCAGGGTTTCCCTCTCCNTATTTTTTC
ATGCCCCACCTTTCAGCACTTTTCATGGTTNCTTNGTCTTTAAAAAACCCCAA

Sequence 2995

CCCTTCGGCCGCCCGGGCAGGTACATTTAAAAGGTGATGCTAATACTTTAAAATGTTTAA
GATATAGATTTAAAAAGCATTGTAAATTGTATACTGCAGTGTCTGTCTGCATGGCATTGGA
CAGGACATAATGTAAACATAAAAGTGCAATTGTTACACTTACATATGATAGTGAATGGC
AACGTGACCAATTTTTGTCTCAAGTTAAATACCAAAAACATTACAGTGTCTACTGGAT
TTATGTCTATATGACAAATCTTGATACTGCATCCACAACATTACTGGCGTGCTTTTTGCT
TTGCTTTTGTGTGCTTTTGT

Sequence 2996

CCCTTAGCGTGGTCGCGGCCGAGGTACCATTTGGGATTATGGTTTTTAAAAGCTTGAGAA
TATTACTTATTTACTTTTGCAGCTTTCCATGCAGCTGTTTTTTTTCTCTCTGTTTTTGA
CTTTGGANATAAAGTTACTGATTTTTATCTTTACTTTTCTCTTTATTTTGTGCTTGGTC
TTGAAAAAGTAATAAATATTTCTTACTGAGGCCCTCCTGCTTTGTTCTGCCATCTAAG
GTGATTACAATGCTCAAGTCTCTTTGTTGGTTGCCCTTGACTAATGCTTTTCAGCAGCCC
CGGGCTCAGCTCCTGGTTCCAGTATGGCACAATGACCAGGCAGATATCTCGACACAAC
CTACTACTTCTTCGACATCTTCTGGTGGATACAGACAACTCCCTCTGTGACTGCTCAAT
TTTCTGCTCAGCCTCATGTTAATGGGAGGTCCACTTTATTCTCAAAATTCAGTAAGCTT
GTGCTTTGCAGGCATACAGCAACAGGGGGAGCTCCTTTTGAAGGAAATTATTTGAACT
GGTTTTTCTTGCCAGGGGATAGACAACCAATTGAAAAACCATGAAGGNTNCAAGGGTTAT
TTTTGGGTTTTANGAAATTAAGNCCCTTGAAATCATACCNATTTTTAAANANGTAATTGN
TTTACCACCTTTTTNTTCCCA

Sequence 2997

TABLE 1A

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CCCTTTGAGCGGCCGCCGGGCAGGTACATGTTCCCTTACTTTGGGGAGTCTAGG
TTGTGAATTTGAAACAAAATCAGATTCTTTTCATCTTCCCTTTCCCCTCAAATTCCTGAG
AAAACCTCCAACCTTCTAAATTTATAGCAAATCAACTATAATTATGTGTTTCCATTTGAA
ATTCAAGCTAAAATAACATACTTTAAAAAGTGTATCTTAAAAATCATATTCGCTTCAAA
AAAACCTTGTTAAAAGTAATTTGCATCAGATCCTGGAGTCGACTTGAAGAATTCTCCTACA
TCTGACACCCAGTTAGGCCCTTTGAGAAAGAGAGAAAAGAGAATTTTTTAATGCATGTTT
GATTATGGCCATCTCTTTTCTTAGAAGGTAGAAGATAGCACCATGCCGATTGTCGAAC
GTGAATTCTACCCGGGAACTCC

Sequence 2998

CCCTTAGCGTGGTCGCGGCCGAGGTACATTTAAAAGGTGATGCTAATACTTTAAAATGTT
TAAGATATAGATTTAAAAGCATTGTAAATTGTATACTGCAGTGTGCTCTACATGGCATT
GGACAGGACATAATGTAAACATAAAAAGTGCAATTGTTACACTTACATATGATAGTGAAT
GGCAACGTGACCAATTTTGTCTCAAGTAAAATACAAAAACTATTACAGTGTCTACTG
GATTTATGTCTATATGACAAATCTTGATACTGCATCCACAACATTATTGGCGTGCTTTT
GCTTTGCTTTTGTGTGCTTTTGTG

Sequence 2999

ACATCTGCACATTGTGCAGGTTAGTTACATATGTATACATGTGCCATGCTGGTGCACTGC
ACCCACTAAATCGTCATCTAGAAGTGTTTTCTAATTTTATTTGTAATTTCTTCTTTGTT
CATTGGCTGTTGAAGAATGTGTTGTTTGGCCGAGCACAGTGGCCACGCCTGTGATCCCA
GCACTTTGGGAGGCCGAGGCAGGTGGATCACGAGGTCAGGAGATCCCCGCGTACATCTAT
TTAAAAGTCAATACACAGGAAAAAGGTCTGGAAGAATATACTAGAAAAAGAAATGGTTAC
CTCTAGGGGATGGAGTGTCAAGGTGAATTTTGGTTTATTCATACTGTCTAAATGATTGCT
TAATAACTCAGGTATTGCTTTCAAAAAGTAAGAGGAAGGGTGGGAAATACCCTGTTCTCT
CANAATTTTAAGTCCAGAGTGCTGGGGAGAAAAANATGGCAGCACTTGANCGGGACTGAA
AAAGT

Sequence 3000

CCCTTAGCGTGGTCGCGGCCGAGGTACGCGGGTAGGAGCAGGAGGAGCAGTGGGGGAAGC
TGGTATTATTTATACCACTCTTTGTATTTTATCACTTTTATAAGTCTGAAATTATTTCA
AAATGAAAATGTAAAAGAACAAGGAGTTTCTCACTATTCTTTGTCCCCCTAAAAAGACC
ATCTTTTAAAAAGATTAAAGGAATTCATACAAAATAAGTAAGAATTAACAATTATAGGAA
GTTTGGGCCAAGCACAGTGGCTCATGCCTGTAATCCCAGCGCTTTGGGAAGCTGAGGTGG
GTGGATTGCTTGGGCCTAAGAGTTCAAGACTANCCCTGGTAACAGCGAGGACCCTTGTCT
CTACAAAAAATAAAAAATACTAAC

Sequence 3001

CCCTTAGCGTGGTCGCGGCCGAGGTACAGATGGGGTTTCACTGTGTTAGCCAGGATGGTC
TTGATCTCCTGACCTCGTGATCTGCCCGCCTCGGTCTCCCAAAGTGCTGCGATTACAGGC
GTGAGCCACTGTGCCCAGGCCTATTGGGGGTTATGCAGGTTCTTTGCTTGGCCATGGTA
GATGGCTAAGTCTTTGCTTCCAAGTTCTTTGACCATGAGACATGTAGAGCCAGGGAGGA
AAGAGAAAACCCAAACCAGGTCACTGTTACCTGTGAATAACATCTTGATCGAGTTCTGAG
A

Sequence 3002

CCCTTTGAGCGGCCGCCGGGCAGGTACATTTTCATATTCTCCACCTTTGTTCTTGCC
CTTTGCCTTCAAAGATATGTAGATGTTCTTAACTCCAAAAATTATAAAAAACAAACAAA
AACTTTACCACTGTTCAATTATCAAAGTTACTATTCAATTTATCCATTCAATATTTAGAGT
AGCTAACAAAGACAAAACAAAATAATTGCTGCTTTGCTGGCTTATAGTGGGGAAGGGTGAT
AAACACCATGATGAAGGAGAGAAGAGTGCTATTGTGGGGGCACAAATTATGGGGATCTGA
TCCTTTTTTTTAAAGGGAGGCAT

Sequence 3003

CCCTTTGAGCGGCCGCCGGGCAGGTACATTTAAAAGGTGATGCTAATACTTTAAAATG
TTTAAGATATAGATTTAAAAGCATTGTAAATTGTATACTGCAGTGTGCTCTACATGGCA
TTGGACAGGACATAATGTAAACATAAAAAGTGCAATTGTTACACTTACATATGATAGTGA

TABLE 1A

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ATGGCAACGTGACCAATTTTTGTCTCAAGTTAAAATACCAAAAACTATTACAGTGTCTAC
TGGATTTATGTCTATATGACAAATCTTGATACTGCATCCACAACATTACTGGCGTGCTTT
TTGCTTTGCTTTTGTGTGC

Sequence 3004

CCCTTAGCGTGGTCGCGGCCGAGGTACCATGTTCTAAAGGCAATCGAGTCATAATACACT
GAAAGCAGTCCAAGAGCAGCAAGAGACTTTGCTGCAGCTGTAGATCACTGGATCGGTAAC
TCGTAGTTAAAGGAAATCCCTACCCACTCCCATCCAGCCCCTACCCCCTAATTATGGGAC
AAAATAGCCAATTCATGAGATTTAAACAGGAAGTTCACAAGAGGAACTCTTATACCTAT
GAGGACCCATTAACCAGGGATTCCACAACCAGTAGAATATTATCTACTGGTAGCTATTTA
AGCCTTACCTGACAGGTCTCCAAGCCAGCCGAGCAGCCACATCCCTCTCTGCGCCATAA
ACGTCTCGCCTCAGTTTCTGAAATTCCTCAACTGAGAANGGAATATAGCCAGCAGGCACT
CCCAACCCTGTTATGATTCTACAGTTCTACTGTTAGTAAATTTCCAGGGGCATCACAAT
CTGTGTCCTTACACATGCATACACAGAGGAGCTTCCTTTTTANGGATGAGCTCCTCATT
CAGGGC

Sequence 3005

CCCTTAGCGTGGTCGCGGCCGAGGTACTAAGTCTATCGCCATGCTGTGTACAGTGGGCAG
GTCTTCTTGGCATTTCATCTTGAACATGACCCAAATCCTGGCTCCATCTTCCCTCTTACTT
TTCCTTTGCCCATTTTTCTTCTTATTTTTATGTATGTTTACCTTGCCCTGTAGGCGC
ATTTGTAAGCTGGCTCAAATCCTTTTGGGAACAAGGTGGGTTATAAATGCACACGTTCTT
ACACAGGATGTTGTTAGTCATTTTATAAGGTCTCTTGTGGAGGAGATTAGCCAATAGCTT
CTTTTGTAACCTTAGGCA

Sequence 3006

CCCTTAGCGTGGTCGTGGCCGAGGTACAAAACACATTTGGTCCTGAGATTTTTTCAGAAGC
AATTTAAGTGTAATAGGAATCCTCAGAAGGAAGAAAGTAAACATGTTCTGAGCAACTCC
TCCTCCAGGCACTACAATAAAGAGAAGGGAAGTGGACCTGGAAAGACAGACAGTCCATA
GAGAAGTGGAGAGGGAAGAGGAAGAGAGCATGCTGCTTAATGCAGGTTGACATTTCTGTT
TGTGAAGCTAATTAATTCAGAAGGATTAATACTTAATACTTTACCGTCTGTATGTAT
GTATGTATTTATTTATTTTATTTTGTAGATGGAGTCTCACTCTGTCACCCANGCTGG
AGTGCAAAGGCCAATCTTGGCTCACTGCAACCTCCACCTTCCAGGTTCAAGCGATTCTT
CTGACTCACCTCCAAGTAGCTGGGATTACAGGCACACACCACCATGCNAGCTAATTTTT
TGNATTTTTANTAAAANACANGGGTCCCGGNTACCCGGATGGGCTCAATCTCTGACC
TCNGGATCTGGCTGTNTCGGGCCTCCCAANTGCTTGGATANAGGCGTGAGCCCCTGGGCC
CCACTTATACCCTTNATAANTAAATATTTAATCCCCAAGNTTTAAATTTNNTTATCCCT
TGTCGGGGTAAACCTTTCCNAAAAGG

Sequence 3007

CCCTTAGCGTGGTCGCGGCCGAGGTACATGATTCTACACTGAATCTGCATTTCACTCCCA
TATCTATACCAGAAGGTTATCAGTGAAGAGAAATTCAGTTATCTTGAATGGACATGATC
TTCTCAGGAGCAGTCAGTGGTTAATTTGGGACAAGAAAACACAAGTCATTATCATTGAGAA
ATCTGAAGCAAATTGAGGCAGGTTGTACCTTTTACCAGGAAACAAATTAGCCCTGTCTT
TAAAAAGACTTCTTTCTCTCTCTGCTGACTGGGGATTCTGTCAACTGCCAATGAAATAG
GGAGAGTGTAGATTAATGGC

Sequence 3008

CCCTTAGCGTGGTCGCGGCCGAGGTACTAACCATATGAAAATAGTTGCTACCTTGTTGGA
CAGGACAGATATACAAAGCATTTCCATTTTTACAGAAAATGTGTATGGATACCATGGAGG
TTTGAAATAAATGCTGAGTTCATTCAAACATAGTGAAATACAGCATGTGAAAAAGTAAT
TACTTATTGACTATAATAAATGCTTCATAAAATATAATAGATGCTGATTCTGGCCAAGAT
TGACAAAATCTAATGCAGCCTACATGTCTCAGTGGTTAATACTAAGACTCTGAATAAAAT
ACAAGCAAATAAACA

Sequence 3009

CCCTTAGCGTGGTCGCGGCCGAGGTACCTTTGCCAGTTTCTGGCATATTAACAGCTGAGA
TCAGATAAGTGAACAGCGATAGAGGTAGTGAGGTTTAGGATTCAGGTCTGCCACCGGGAG

TABLE 1A

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CGCACCTCTGGGCTCAGGTCTCTCATTTGTAAAATGGGACATTTAGGTCAGATCAGCATT
TTCAAAAGTGACATGTTAGTAAATAAGATGATTTTATGTGGTTGACAGATGAATGTAT
TACCTTTAGTGGTTATATGTTTTATTTTCATGGTTACTTTTATTTATAATAAATTTTGTGA
CTAGCTAAGAATCAATTATCTCTTTAAAATATATTTAAAGTTTAAAATGTGGGCCAACTT
AG

Sequence 3010

CCCTTTCGAGCGGCCGCCCGGGCAGGTACATTTAAAAGGTGATGCTAATACTTTAAAATG
TTTAAGATATAGATTTAAAAAGCATTGTAAATTGTATACTGCAGTGTCTGTCTACATGGCA
TTGGACAGGACATAATGTAAACATAAAAGTGCAATTGTTACACTTACATATGATAGTGA
ATGGCAACGTGGCCAATTTTGTCTCAAGTTAAAATACCAAAAACTATTACAGTGTCTAC
TGGATTTATGTCTATATGACAAATCTTGATACTGCATCCACAACATTACCTGGCGTGCTT
TTTGCTTTGCTTTTGTGTGCTT

Sequence 3011

CCCTTCGAGCGGCCGCCCGGGCAGGTACTGAATGGAAGAGAGAGTTGGAACAGTGAACAT
ATTCTACTTTTTCAAGAATTTCTCTTTAAAGGTATGGGAAAAAGATGGCACAAAATTC
TTTGAGGATAGCATAGATCTAAAGGCATTTAAACCTTGAGTCTTGAACATATTTATAGG
CACGGAAAAAATTTCTACAGAAAGGAAAGATTGTAATTATAGGAGAGAGAAAAACAGTGAT
ATTTCTGAGGATATTGTGGGGAGTGGGTGCTAAAGGACCATTGGATATATCATTCTTAA
CCAGAAAGGGGAAAGGATTGGGTACCTTCGNCGCGACCCACGCTAANGG

Sequence 3012

CCCTTTGAGCGGCCGCCCGGGCAGGTACATTTAAAAGGTGATGCTAATACTTTAAAATGT
TTAAGATATAGATTTAAAAAGCATTGTAAATTGTATACTGAGTGTCCGTCTACATGGCAT
TGGACAGGACATAATGTAAACATAAAAGTGCAATTGTTACACTTACATATGATAGTGAA
TGGCAACGTGACCAATTTTCTGTCTCAAGTTAAAATACCAAAAACTATTACAGTGTCTACT
GGATTTATGTCTATATGACAAATCTTGATACTGCATCCACAACATTACTGGCGTGCTTTT
TGCTTTGCTTTTGTGTGCTTTTGTGTGCTGCTGCTATTAATACCGTCCGCTGCTTTTGTCT
GTGTCTACATACACATCATTAACTATTGGTATTACTATTGTGGATAACAGCAGCCTCT
GCGTTTAGGTGTTTTATTGNATATATTGNATTTGGTTATATACCATTATTTTAATACAT
ACACATGCACGCTTTT

Sequence 3013

CCCTTAGCGTGGTGC GCGGCCGAGGTACAAATAGGGTCACCTACTCTCAAATTCTGCGGTT
CAAATTGTGGTTGGAGATGAGATGTTCTATTTCTGCATCTCTCCTGGACCATCTTAGAGC
AGTGCAAAGTTTACTGGATCTTCCAGTGCATTATTGGCCCTTGGTGTGATGACGAGAGAG
CAGGAAGGAGGTCTCCAGCTCCTTTTCTGAGTTCAGATGTTCCCTAGCCCAAGAAGACTA
ATCATGCACCTGGTTTCTGCTCTGAAAAATAAGAAGTGATTTTGGCAGCCTTTGAATCT
GGATGGAAGGTGGT

Sequence 3014

CCCTTTCGAGCGGCCGCCCGGGCAGGTACATTTAAAAGGTGATGCTAATACTTTAAAATG
TTTAAGATATAGATTTAAAAAGCATTGTAAATTGTATACTAGCAGTGTCTGTCTACATGGC
ATTGGACAGGACATAATGTAAACATAAAAGTGCAATTGTTACACTTACATATGATAGTG
AATGGCAACGTGACCAATTTTGTCTCAAGTTAAAATACCAAAAACTATTACAGTGTCTA
CTGGATTTATGTCTATATGACAAATCTTGATACTGCATCCACAACATTACTGGCGTGCTT
TTTGCTTTGCTTTTGT

Sequence 3015

CCCTTAGCGTGGTGC GCGGCCGAGGTACATTTAAAAGGTGATGCTAATACTTTAAAATGTT
TAAGATATAGATTTAAAAAGCATTGTAAATTGTATACTGCAGTGTCTGTCTACATGGCATT
GGACAGGACATAATGTAAACATAAAAGTGCAATTGTTACACTTACATATGATAGTGAAT
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GATTTATGTCTATATGACAAATCTTGATACTGCATCCACAACATTACTGGCGTGCTTTT
TGCTTTGCTTTTGTGTGCTT

Sequence 3016